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   Trp Pro Leu Ser Asn Thr Arg Ser Ser Glu His Ile Lys Glu Val Met
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 35 Lys Val Phe Trp Asp Leu Ala Ala Thr Arg Ala Val Phe Gly Val Gln
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 40 Ala Asp Lys Ala Arg Gly Gln Gln Asn Trp Cys Trp Phe His Ile Thr
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 50 cac tat cta gct atg acc acg ttg ctc ctg gag atg agc acg ccc ttt 710
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	Ile	Ile	Glu	Ile	His	Ser	Lys	Arg	Ile	Gln	Leu	Tyr	Gly	Ala	Tyr	Leu	
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	Val	Leu	Glu	Thr	Leu	Gly	Ser	Ser	Glu	Pro	Ala	Gly	Gly	Ala	Leu	Arg	
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 Met Arg Gln Lys
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 40 Gly Gly Val Pro Ala Gly Gly Leu Val Ala Thr Leu Gln Ser Leu Gly
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 Ala Gly Gly Ser Ser Val Val Ile Gly Asn Ile Gly Ala Leu Met Gly
 85 90 95

45 tac gcc acc cac aag tat ctc gat agt gag gag gat gag gag 492
 Tyr Ala Thr His Lys Tyr Leu Asp Ser Glu Glu Asp Glu Glu
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                                Met
                                -20
15  gcc gtc gga gga gga ctc gca gtc gcc ggg ctg ccc gcg ctg ggc ttc 284
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    acc ggc gcc ggc atc gcg gcc aac tcg gtg gct gcc tcg ctg atg agc 332
    Thr Gly Ala Gly Ile Ala Ala Asn Ser Val Ala Ala Ser Leu Met Ser
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    Trp Ser Ala Ile Leu Asn Gly Gly Gly Val Pro Ala Gly Gly Leu Val
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25  Ala Thr Leu Gln Ser Leu Gly Ala Gly Gly Ser Ser Val Val Ile Gly
    30                                35                                40                                45
    aat att ggt gcc ctg atg ggc tac gcc acc cac aag tat ctc gat agt 476
    Asn Ile Gly Ala Leu Met Gly Tyr Ala Thr His Lys Tyr Leu Asp Ser
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30  gag gag gat gag gag tagccagcag ctcccagaac ctcttcttcc ttcttggcct 531
    Glu Glu Asp Glu Glu
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    atgggtttct actatatattgt ccaggctaga gtgcagtggc tattcacaga tgcgaacata 651
35  gtacactgca gcctccaact cctagcctca agtgatcctc ctgtctcaac ctcccaagta 711
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    atg gcc ccc ttt gag ccc ctg gct tct ggc atc ctg ttg ttg ctg tgg 227
60  Met Ala Pro Phe Glu Pro Leu Ala Ser Gly Ile Leu Leu Leu Leu Trp
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    Leu Ile Ala Pro Ser Arg Ala Cys Thr Cys Val Pro Pro His Pro Gln

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5 aca cca gaa gtc aac cag acc acc tta tac cag cgt tat gag atc aag      371
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25 aaa ctg cag agt ggc act cat tgc ttg tgg acg gac cag ctc ctc caa      707
Lys Leu Gln Ser Gly Thr His Cys Leu Trp Thr Asp Gln Leu Leu Gln
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60 ttt gtg gtc ttc tct ctc ttt ttg atc tgt gca atg gct gga gat gta      220
   Phe Val Val Phe Ser Leu Phe Leu Ile Cys Ala Met Ala Gly Asp Val
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Ile Asn Asn Ser Tyr Leu Met Val Ile Gln Asp Ile Thr Ala Met Val
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Glu Cys Asp Tyr Ile Asn Ala Arg Ser Cys Cys Ser Lys Leu Asn Lys
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tgg gta att cca gaa ttg att ggc cat acc att gtc act gta tta ctg      253
Trp Val Ile Pro Glu Leu Ile Gly His Thr Ile Val Thr Val Leu Leu
35      40      45
50 ctc atg tca ttg cac tgg ttc atc ttc ctt ctc aac tta cct gtt gcc      301
Leu Met Ser Leu His Trp Phe Ile Phe Leu Leu Asn Leu Pro Val Ala
50      55      60
act tgg aat ata tat cga tac att atg gtg ccg agt ggt aac atg gga      349
55 Thr Trp Asn Ile Tyr Arg Tyr Ile Met Val Pro Ser Gly Asn Met Gly
65      70      75
gtg ttt gat cca aca gaa ata cac aat cga ggg cag ctg aag tca cac      397
Val Phe Asp Pro Thr Glu Ile His Asn Arg Gly Gln Leu Lys Ser His
80      85      90      95
60 atg aaa gaa gcc atg atc aag ctt ggt ttc cac ttg ctc tgc ttc ttc      445
Met Lys Glu Ala Met Ile Lys Leu Gly Phe His Leu Leu Cys Phe Phe
100      105      110
atg tat ctt tat agt atg atc tta gct ttg ata aat gac tgaagctgga      494

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Met Tyr Leu Tyr Ser Met Ile Leu Ala Leu Ile Asn Asp
 115 120
 gaagccgtgg ttgaagtcag cctacactac agtgcacagt tgaggagcca gagacttctt 554
 aaatcatcct tagaaccgtg accatagcag tatatatattt cctcttggaa caaaaaacta 614
 5 tttttgctgt attttttacca tataaagtat ttaaaaaaca cgaaaaaaaaa aaaaaaaaaa 673

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 ctg ctc tcc tgg acg ctg agc aga gtc ctg tgg ctc tcc ggc ctc tct 103
 Leu Leu Ser Trp Thr Leu Ser Arg Val Leu Trp Leu Ser Gly Leu Ser
 -20 -15 -10
 30 gag ccg gga gct gcc cgg cag ccc cgg atc atg gaa gag aaa gcg cta 151
 Glu Pro Gly Ala Ala Arg Gln Pro Arg Ile Met Glu Glu Lys Ala Leu
 -5 1 5 10
 gag gtt tat gat ttg att aga act atc cgg gac cca gaa aag ccc aat 199
 Glu Val Tyr Asp Leu Ile Arg Thr Ile Arg Asp Pro Glu Lys Pro Asn
 35 15 20 25
 act tta gaa gaa ctg gaa gtg gtc tcg gaa agt tgt gtg gaa gtt cag 247
 Thr Leu Glu Glu Leu Glu Val Val Ser Glu Ser Cys Val Glu Val Gln
 30 35 40
 gag ata aat gaa gaa gaa tat ctg gtt att atc agg ttc acg cca aca 295
 40 Glu Ile Asn Glu Glu Glu Tyr Leu Val Ile Ile Arg Phe Thr Pro Thr
 45 50 55
 gta cct cat tgc tct ttg gcg act ctt att ggg ctg tgc tta aga gta 343
 Val Pro His Cys Ser Leu Ala Thr Leu Ile Gly Leu Cys Leu Arg Val
 60 65 70 75
 45 aaa ctt cag cga tgt tta cca ttt aaa cat aag ttg gaa atc tac att 391
 Lys Leu Gln Arg Cys Leu Pro Phe Lys His Lys Leu Glu Ile Tyr Ile
 80 85 90
 tct gaa gga acc cac tca aca gaa gaa gac atc aat aag cag ata aat 439
 Ser Glu Gly Thr His Ser Thr Glu Glu Asp Ile Asn Lys Gln Ile Asn
 50 95 100 105
 gac aaa gag cga gtg gca gct gca atg gaa aac ccc aac tta cgg gaa 487
 Asp Lys Glu Arg Val Ala Ala Ala Met Glu Asn Pro Asn Leu Arg Glu
 110 115 120
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 55 Ile Val Glu Gln Cys Val Leu Glu Pro Asp
 125 130
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 taatacatag gtgattttgta cctcagagca ttttttaaag gattctttcc aagcgagatt 657
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 60 aaatgatcag acagaataat atttttctagt tattatgtgt aagatgagtt gctatttttc 777
 tgatgctcat tctgatacaa ctatttttctg tgtcaaatat ctactgtgcc caaatgtact 837
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ttccagtgtt tctggcagtt ggtccagaag g atg cct cca ttc ctg ctt ctc      112
20                                     Met Pro Pro Phe Leu Leu Leu
                                     -15                                     -10
acc tgc ctc ttc atc aca ggc acc tcc gtg tca ccc gtg gcc cta gat      160
Thr Cys Leu Phe Ile Thr Gly Thr Ser Val Ser Pro Val Ala Leu Asp
                                     -5                                     1                                     5
25 cct tgt tct gct tac atc agc ctg aat gag ccc tgg agg aac act gac      208
Pro Cys Ser Ala Tyr Ile Ser Leu Asn Glu Pro Trp Arg Asn Thr Asp
                                     10                                     15                                     20
cac cag ttg gat gag tct caa ggt cct cct cta tgt gac aac cat gtg      256
His Gln Leu Asp Glu Ser Gln Gly Pro Pro Leu Cys Asp Asn His Val
30      25      30      35
aat ggg gag tgg tac cac ttc acg ggc atg gcg gga gat gcc atg cct      304
Asn Gly Glu Trp Tyr His Phe Thr Gly Met Ala Gly Asp Ala Met Pro
40      40      45      50      55
acc ttc tgc ata cca gaa aac cac tgt gga acc cac gca cct gtc tgg      352
Thr Phe Cys Ile Pro Glu Asn His Cys Gly Thr His Ala Pro Val Trp
35      60      65      70
ctc aat ggc agc cac ccc cta gaa ggc gac ggc att gtg caa cgc cag      400
Leu Asn Gly Ser His Pro Leu Glu Gly Asp Gly Ile Val Gln Arg Gln
40      75      80      85
gct tgt gcc agc ttc aat ggg aac tgc tgt ctc tgg aac acc acg gtg      448
Ala Cys Ala Ser Phe Asn Gly Asn Cys Cys Leu Trp Asn Thr Thr Val
90      95      100
gaa gtc aag gct tgc cct gga ggc tac tat gtg tat cgt ctg acc aag      496
Glu Val Lys Ala Cys Pro Gly Gly Tyr Tyr Val Tyr Arg Leu Thr Lys
45      105      110      115
ccc agc gtc tgc ttc cac gtc tac tgt ggt cgt gag tac ctt ccc tgt      544
Pro Ser Val Cys Phe His Val Tyr Cys Gly Arg Glu Tyr Leu Pro Cys
120      125      130      135
gct ctt ttt ctc cac caa caa ggc cac agg tgg agt cca aaa gtg ccc      592
Ala Leu Phe Leu His Gln Gln Gly His Arg Trp Ser Pro Lys Val Pro
50      140      145      150
aat tat agg ata tgc agt tac agt ggc aac tat atc tca atc      634
Asn Tyr Arg Ile Cys Ser Tyr Ser Gly Asn Tyr Ile Ser Ile
155      160      165
55 tgaacaacat tgatgtgggg cttaaagatac tctgatttct gagatctctt cttagaactt      694
ctgaaaaaatt cctgaagaaa tagaagggga aaggagctat gactttgatc agttcttttt      754
aattttgtct gaattccatt caaacaaaac attagaaaaa gaaacattgg gccaggcgca      814
gtggctcatg cctgtaatcc cagcactttg ggaggctgag gcgggtggat cacaagatca      874
ggagtttaag accagcctgg ccaatatggt gaaaccctgt ctctactaga aatacaaaaa      934
60 ttagacaggc gtggtggcag gcaactgtaa ccccagctac ccgggaggct gaggcaggag      994
aattgcttga acccgaggag tggacgttgc ggtcaggcga aaatcgtgcc attgcactcc      1054
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 Met Gly Leu Pro Gly Leu Phe Cys Leu
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 gcc gtg ctg gct gcc agc agc ttc tcc aag gca cgg gag gaa gaa att 101
 Ala Val Leu Ala Ala Ser Ser Phe Ser Lys Ala Arg Glu Glu Glu Ile
 -5 1 5
 acc cct gtg gtc tcc att gcc tac aaa gtc ctg gaa gtt ttc ccc aaa 149
 25 Thr Pro Val Val Ser Ile Ala Tyr Lys Val Leu Glu Val Phe Pro Lys
 10 15 20
 ggc cgc tgg gtg ctc ata acc tgc tgt gca ccc cag cca cca ccg ccc 197
 Gly Arg Trp Val Leu Ile Thr Cys Cys Ala Pro Gln Pro Pro Pro Pro
 25 30 35
 30 atc acc tat tcc ctc tgt gga acc aag aac atc aag gtg gcc aag aag 245
 Ile Thr Tyr Ser Leu Cys Gly Thr Lys Asn Ile Lys Val Ala Lys Lys
 40 45 50 55
 gtg gtg aag acc cac gag ccg gcc tcc ttc aac ctc aac gtc aca ctc 293
 Val Val Lys Thr His Glu Pro Ala Ser Phe Asn Leu Asn Val Thr Leu
 35 60 65 70
 aag tcc agt cca gac ctg ctc acc tac ttc tgc cgg gcg tcc tcc acc 341
 Lys Ser Ser Pro Asp Leu Leu Thr Tyr Phe Cys Arg Ala Ser Ser Thr
 75 80 85
 40 tca ggt gcc cat gtg gac agt gcc agg cta cag atg cac tgg gag ctg 389
 Ser Gly Ala His Val Asp Ser Ala Arg Leu Gln Met His Trp Glu Leu
 90 95 100
 tgg tcc aag cca gtg tct gag ctg cgg gcc aac ttc act ctg cag gac 437
 Trp Ser Lys Pro Val Ser Glu Leu Arg Ala Asn Phe Thr Leu Gln Asp
 105 110 115
 45 aga ggg gca ggc ccc agg gtg gag atg atc tgc cag gcg tcc tcg ggc 485
 Arg Gly Ala Gly Pro Arg Val Glu Met Ile Cys Gln Ala Ser Ser Gly
 120 125 130 135
 agc cca cct atc acc aac agc ctg atc ggg aag gat ggg cag gtc cac 533
 Ser Pro Pro Ile Thr Asn Ser Leu Ile Gly Lys Asp Gly Gln Val His
 140 145 150
 50 ctg cag cag aga cca tgc cac agg cag cct gcc aac ttc tcc ttc ctg 581
 Leu Gln Gln Arg Pro Cys His Arg Gln Pro Ala Asn Phe Ser Phe Leu
 155 160 165
 ccg agc cag aca tcg gac tgg ttc tgg tgc cag gct gca aac aac gcc 629
 55 Pro Ser Gln Thr Ser Asp Trp Phe Trp Cys Gln Ala Ala Asn Asn Ala
 170 175 180
 aat gtc cag cac agc gcc ctc aca gtg gtg ccc cca gga ggg ttg ccc 677
 Asn Val Gln His Ser Ala Leu Thr Val Val Pro Pro Gly Gly Leu Pro
 185 190 195
 60 agg gca ccc acc atc gtg ctg gtt ggc agc ctt gcc tcc act gcg gcc 725
 Arg Ala Pro Thr Ile Val Leu Val Gly Ser Leu Ala Ser Thr Ala Ala
 200 205 210 215
 atc acc tcc agg atg ctg ggc tgg acc acg tgg gcc agg tgg 767

Ile Thr Ser Arg Met Leu Gly Trp Thr Thr Trp Ala Arg Trp
220 225
tgaccagaag atggaggact ggcagggtcc cctggagagc cccatccttg ccttgccgct 827
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5 ggaggtcaga ggacgcaaag cagcagccat gtagaatgaa ccgtccagag agccaagcac 947
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20 <222> 4..126
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score 4.34454795165846
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Met Glu Gly Gly Ala Tyr Gly Ala Gly Lys Ala Gly Gly Ala Phe
-40 -35 -30
gac ccc tac acc ctg gtc cgg cag ccg cac acc atc ctg cgc gtc gtg 96
30 Asp Pro Tyr Thr Leu Val Arg Gln Pro His Thr Ile Leu Arg Val Val
-25 -20 -15
tct tgg ctg ttc tcc ata gtg gtg ttc ggc tcc atc gtg aac gag ggc 144
Ser Trp Leu Phe Ser Ile Val Val Phe Gly Ser Ile Val Asn Glu Gly
-10 -5 1 5
35 tac ctc aac agc gcc tcc gag ggg gag cag ttc tgc atc tac aac cgc 192
Tyr Leu Asn Ser Ala Ser Glu Gly Glu Gln Phe Cys Ile Tyr Asn Arg
10 15 20
aac ccc aac gcc tgc agc tat ggc gtg gcc gtg ggc gtg ctc gcc ttc 240
Asn Pro Asn Ala Cys Ser Tyr Gly Val Ala Val Gly Val Leu Ala Phe
25 30 35
ctc acc tgc ctg ctg tac ctg gcc ctg gac gtg tac ttc ccg cag atc 288
Leu Thr Cys Leu Leu Tyr Leu Ala Leu Asp Val Tyr Phe Pro Gln Ile
40 45 50
agc agc gtc aag gac cgc aag aaa gcc gtc ctg tcc gac atc ggt gtc 336
45 Ser Ser Val Lys Asp Arg Lys Lys Ala Val Leu Ser Asp Ile Gly Val
55 60 65 70
tcg ggt gag ccc cac cca gca ggt acc ccc tgc aca gag tct aca gag 384
Ser Gly Glu Pro His Pro Ala Gly Thr Pro Cys Thr Glu Ser Thr Glu
75 80 85
50 ggc tgt ccc ggg cca taggaggcgg ctgccaccct tcttcccatg tttcagatga 439
Gly Cys Pro Gly Pro
90
gggaaatgag ccttctgggc tttcctctgg ttcgtgggat tctgctacct ggccaaccag 499
tggcaggtct ccaagcccaa ggacaaccca ctgaacgaag ggacggacgc agcccgggccc 559
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aggctggcct gaggaaccaa ttcaggttct ccaactgactc attcattcct tcaccgcctc 859
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aaaaaa 925

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 seq ALCSVCSMSVLRA/YP

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 gccaggagag tcccgacagg agtgtcaggt ttcaatctca gcaccagcca ctgagagcag 120
 ggcacg atg ttg ggg gcc cgc ctc agg ctc tgg gtc tgt gcc ttg tgc 168
 20 Met Leu Gly Ala Arg Leu Arg Leu Trp Val Cys Ala Leu Cys
 -20 -15
 agc gtc tgc agc atg agc gtc ctc aga gcc tat ccc aat gcc tcc cca 216
 Ser Val Cys Ser Met Ser Val Leu Arg Ala Tyr Pro Asn Ala Ser Pro
 -10 -5 1 5
 25 ctg ctc ggc tcc agc tgg ggt ggc ctg atc cac ctg tac aca gcc aca 264
 Leu Leu Gly Ser Ser Trp Gly Gly Leu Ile His Leu Tyr Thr Ala Thr
 10 15 20
 gcc agg aac agc tac cac ctg cag atc cac aag aat ggc cat gtg gat 312
 Ala Arg Asn Ser Tyr His Leu Gln Ile His Lys Asn Gly His Val Asp
 25 30 35
 ggc gca ccc cat cag acc atc tac agt gcc ctg atg atc aga tca gag 360
 Gly Ala Pro His Gln Thr Ile Tyr Ser Ala Leu Met Ile Arg Ser Glu
 40 45 50
 gat gct ggc ttt gtg gtg att aca ggt gtg atg agc aga aga tac ctc 408
 35 Asp Ala Gly Phe Val Val Ile Thr Gly Val Met Ser Arg Arg Tyr Leu
 55 60 65 70
 tgc atg gat ttc aga ggc aac att ttt gga tca cac tat ttc gac ccg 456
 Cys Met Asp Phe Arg Gly Asn Ile Phe Gly Ser His Tyr Phe Asp Pro
 75 80 85
 40 gag aac tgc agg ttc caa cac cag acg ctg gaa aac ggg tac gac gtc 504
 Glu Asn Cys Arg Phe Gln His Gln Thr Leu Glu Asn Gly Tyr Asp Val
 90 95 100
 tac cac tct cct cag tat cac ttc ctg gtc agt ctg ggc cgg gcg aag 552
 Tyr His Ser Pro Gln Tyr His Phe Leu Val Ser Leu Gly Arg Ala Lys
 105 110 115
 45 aga gcc ttc ctg cca ggc atg aac cca ccc ccg tac tcc cag ttc ctg 600
 Arg Ala Phe Leu Pro Gly Met Asn Pro Pro Pro Tyr Ser Gln Phe Leu
 120 125 130
 tcc cgg agg aac gag atc ccc cta att cac ttc aac acc ccc ata cca 648
 50 Ser Arg Arg Asn Glu Ile Pro Leu Ile His Phe Asn Thr Pro Ile Pro
 135 140 145 150
 cgg cgg cac acc cgg agc gcc gag gac gac tcg gag cgg gac ccc ctg 696
 Arg Arg His Thr Arg Ser Ala Glu Asp Asp Ser Glu Arg Asp Pro Leu
 155 160 165
 55 aac gtg ctg aag ccc cgg gcc cgg atg acc ccg gcc ccg gcc tcc tgt 744
 Asn Val Leu Lys Pro Arg Ala Arg Met Thr Pro Ala Pro Ala Ser Cys
 170 175 180
 tca cag gag ctc ccg agc gcc gag gac aac agc ccg atg gcc agt gac 792
 Ser Gln Glu Leu Pro Ser Ala Glu Asp Asn Ser Pro Met Ala Ser Asp
 185 190 195
 60 cca tta ggg gtg gtc agg ggc ggt cga gtg aac acg cac gct ggg gga 840
 Pro Leu Gly Val Val Arg Gly Gly Arg Val Asn Thr His Ala Gly Gly
 200 205 210

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acg ggc ccg gaa ggc tgc cgc ccc ttc gcc aag ttc atc tagggtcgct      889
Thr Gly Pro Glu Gly Cys Arg Pro Phe Ala Lys Phe Ile
215                220                225
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   ccttgacgtt ccgaggatgg gaaagggtgac aggggcatgt atggaatttg ctgcttctct      1009
   ggggtccctt ccacaggagg tcctgtgaga accaaccttt gaggcccaag tcatgggggtt      1069
   tcaccgcctt cctcactcca tatagaacac ctttcccaat aggaaacccc aacaggtaaa      1129
   ctagaaattt ccccttcatg aaggtagaga gaaggggtct ctcccaacat atttctcttc      1189
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   <222> 156..221
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25   seq LVSMAGRVCLCQG/SA

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30   cctcactcct ggcgtctgag tctctggcgt agccc atg ctg agt ggg cgg ctg      173
                               Met Leu Ser Gly Arg Leu
                               -20
   gtc ctg ggt ctg gtc tcc atg gct ggc cgc gtt tgt ttg tgc cag ggc      221
   Val Leu Gly Leu Val Ser Met Ala Gly Arg Val Cys Leu Cys Gln Gly
35   -15                -10                -5
   agc gcg gga tcc ggg gcc atc ggt ccg gtg gag gcc gcc att cgc acg      269
   Ser Ala Gly Ser Gly Ala Ile Gly Pro Val Glu Ala Ala Ile Arg Thr
   1                5                10                15
   aag ttg gag gag gcc ctg agc ccc gag gtg cta gag ctt cgc aac gag      317
40   Lys Leu Glu Glu Ala Leu Ser Pro Glu Val Leu Glu Leu Arg Asn Glu
       20                25                30
   agc ggt ggc cac gcg gtc ccg cca ggc agt gag act cac ttc cgc gtg      365
   Ser Gly Gly His Ala Val Pro Pro Gly Ser Glu Thr His Phe Arg Val
       35                40                45
45   gct gtg gtg agc tct cgt ttc gag gga ctg agc ccc cta caa cga cac      413
   Ala Val Val Ser Ser Arg Phe Glu Gly Leu Ser Pro Leu Gln Arg His
       50                55                60
   cgg ctg gtc cac gca gcg ctg gcc gag gag ctg gga ggt ccg gtc cat      461
   Arg Leu Val His Ala Ala Leu Ala Glu Glu Leu Gly Gly Pro Val His
50   65                70                75                80
   gcg ctg gcc atc cag gca cgg acc ccc gcc cag tgg aga gag aac tct      509
   Ala Leu Ala Ile Gln Ala Arg Thr Pro Ala Gln Trp Arg Glu Asn Ser
       85                90                95
   cag ctg gac act agc ccc cca tgc ctg ggt ggg aac aag aaa act cta      557
55   Gln Leu Asp Thr Ser Pro Pro Cys Leu Gly Gly Asn Lys Lys Thr Leu
       100                105                110
   gga acc ccc tgaaccccaa gagagggagg accaggatcc gaatgggctg      606
   Gly Thr Pro
       115
60   ggtgagcacg aattaccgag gccttccctt tgatacagtc caggatttgt aagggatgaa      666
   gacccttggg cccattctg ttgggggtcca tacatactct ccgaagatag caacttgctt      726
   caggtcaaag tgaacccgag aaaagagaag aatcactcac tactgctctt gccctggact      786
   attcaggaag ggcagcccgg atgttccatg ttaaactctg acagaattgc accagacctg      846

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atgagttgga aacaatccta tacattaaaa gaaattacac taaaaaaaaa aaaaaa 902

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 <213> Homo sapiens

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 seq SGLLLQVLFRLIT/FV

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 Met Gly Ser Gln Glu Val Leu
 -25

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 Gly His Ala Ala Arg Leu Ala Ser Ser Gly Leu Leu Leu Gln Val Leu
 25 -20 -15 -10
 ttt cgg ttg atc acc ttt gtc ttg aat gca ttt att ctt cgc ttc ctg 151
 Phe Arg Leu Ile Thr Phe Val Leu Asn Ala Phe Ile Leu Arg Phe Leu
 -5 1 5 10
 tca aag gaa atc gtt ggc gta gta aat gta aga cta acg ctg ctt tac 199
 Ser Lys Glu Ile Val Gly Val Val Asn Val Arg Leu Thr Leu Leu Tyr
 15 20 25
 tca acc acc ctc ttc ctg gcc aga gag gcc ttc cgc aga gca tgt ctc 247
 Ser Thr Thr Leu Phe Leu Ala Arg Glu Ala Phe Arg Arg Ala Cys Leu
 30 35 40
 agt ggg ggc acc cag cga gac tgg agc cag acc ctc aac ctg ctg tgg 295
 Ser Gly Gly Thr Gln Arg Asp Trp Ser Gln Thr Leu Asn Leu Leu Trp
 45 50 55
 cta aca gtc ccc ctg ggt gtg ttt tgg tcc tta ttc ctg ggc tgg atc 343
 Leu Thr Val Pro Leu Gly Val Phe Trp Ser Leu Phe Leu Gly Trp Ile
 40 60 65 70 75
 tgg ttg cag ctg ctt gaa gtg cct gat cct aat gtt gtc cct cac tat 391
 Trp Leu Gln Leu Leu Glu Val Pro Asp Pro Asn Val Val Pro His Tyr
 80 85 90
 gca act gga gtg gtg ctg ttt ggt ctc tcg gca gtg gtg gag ctt cta 439
 Ala Thr Gly Val Val Leu Phe Gly Leu Ser Ala Val Val Glu Leu Leu
 95 100 105
 gga gag ccc ttt tgg gtc ttg gca caa gca cat atg ttt gtg aag ctc 487
 Gly Glu Pro Phe Trp Val Leu Ala Gln Ala His Met Phe Val Lys Leu
 110 115 120

50 aag gtg att gca gag agc ctg tcg gta att ctt aag agc gtt ctg aca 535
 Lys Val Ile Ala Glu Ser Leu Ser Val Ile Leu Lys Ser Val Leu Thr
 125 130 135

gct ttt ctc gtg ctg tgg ttg cct cac tgg gga ttg tac att ttc tct 583
 Ala Phe Leu Val Leu Trp Leu Pro His Trp Gly Leu Tyr Ile Phe Ser
 55 140 145 150 155
 ttg gcc cag ctt ttc tat acc aca gtt ctg gtg ctc tgc tat gtt att 631
 Leu Ala Gln Leu Phe Tyr Thr Thr Val Leu Val Leu Cys Tyr Val Ile
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	Glu Thr Thr Met Pro Pro Ser Glu Ala Thr Thr Pro Glu Thr Thr Met	
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	Thr Ala Leu Thr His Asn	
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	Leu Pro Arg Leu Asp Thr Gly Thr Ala Gly Thr Val Ala Pro Pro Gln				
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 40 Ser Ile Thr Val Ala Asp Thr Asn Lys
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   Ile Phe Gly Tyr Lys Arg Arg Gly Gly Val Pro Ser Leu Ile Ala Gly
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      Pro Ala Gly Ser Cys Ala Leu Gln Val Ser Trp Pro Ala Ala Leu Ala
35      ggc cca agg agc cac aca gga cag ttg acc caa cac ttc tgc cac ctg      246
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 60 tct cct gct gaa gga ctt gca ttt caa tgt aga ttc tgaggctggg 398
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   Lys Leu Gly Pro Ala Leu Lys Leu Ser Tyr His Ile Asp Arg Leu Lys
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 Met Ala Glu Leu

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 Asn Lys Ser Arg Glu Val Glu Ser Pro Val Ser Ser Arg Pro Arg Cys
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 Gly Met Pro Thr Val Pro Pro Gly Ser Leu Lys Thr Leu
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Gly Ala Trp Gly Met Gln Met Trp Val Thr Phe Val Ser Gly Phe Leu
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 Phe Lys Lys Asn Ala Cys Leu Leu Arg Glu Ile Leu Gln Ser Lys Leu
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 Gly Gly Met Gly Pro Val Val Phe Ser Tyr Arg Gly Leu Pro Leu Trp
 20 25 30
 ctc ttt gcc tgg ttg ttt cca aga tgt act gtg cct ctt act ttc ggt 243
 10 Leu Phe Ala Trp Leu Phe Pro Arg Cys Thr Val Pro Leu Thr Phe Gly
 35 40 45 50
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 55 60 65
 15 agc act tagggaggcc gaggcgggag gatggccttga ggtccgtagt tgagaccagc 347
 Ser Thr
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 tgggtggctcg tgcctgttgt cccagctgct ccggtggctg aggcgggagg atctcttgag 467
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 45 tct ctg cgg gag gtg ata aag gcc atg acc aag gct cgc aat ttt gag 281
 Ser Leu Arg Glu Val Ile Lys Ala Met Thr Lys Ala Arg Asn Phe Glu
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 aga gtt ttg gga aag att act ctt gtc tct gct gct cct ggg aaa gtg 329
 Arg Val Leu Gly Lys Ile Thr Leu Val Ser Ala Ala Pro Gly Lys Val
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 Ile Cys Glu Met Lys Val Glu Glu Glu His Thr Asn Ala Ile Gly Thr
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 ctc cac ggc ggt ttg aca gcc acg tta gta gat aac ata tca aca atg 425
 55 Leu His Gly Gly Leu Thr Ala Thr Leu Val Asp Asn Ile Ser Thr Met
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 gct ctg cta tgc acg gaa agg gga gca ccc gga gtc agt gtc gat atg 473
 Ala Leu Leu Cys Thr Glu Arg Gly Ala Pro Gly Val Ser Val Asp Met
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 60 aac ata acg tac atg tca cct gca aaa tta gga gaa gat ata gtg att 521
 Asn Ile Thr Tyr Met Ser Pro Ala Lys Leu Gly Glu Asp Ile Val Ile
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Thr Ala His Val Leu Lys Gln Gly Lys Thr Leu Ala Phe Thr Ser Val
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 Asp Leu Thr Asn Lys Ala Thr Gly Lys Leu Ile Ala Gln Gly Arg His
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 Thr Lys His Leu Gly Asn
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 gcggggccag aggggtgcggc ataggctgct gggtcgcaaa acc atg gac ccg gga 175
 Met Asp Pro Gly
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 35 Trp Pro His Phe Lys Leu Thr His Ser Arg Cys Met Ala Val Leu Phe
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 aaccaagctg ccatggccaa gggccgaacc cgtctgacct cagccctgct cactgtgccc 740
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 Met Ser Ala Ser Val Val Ser Val Ile Ser Arg Phe Leu Glu
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10 gag tac ttg agc tcc act ccg cag cgt ctg aag ttg ctg gac gcg tac 157
 Glu Tyr Leu Ser Ser Thr Pro Gln Arg Leu Lys Leu Leu Asp Ala Tyr
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tgt gtg ggg agt ttc atc cta gcg ggt tca ctc ttt gaa ttt cct gga 301
 20 Cys Val Gly Ser Phe Ile Leu Ala Gly Ser Leu Phe Glu Phe Pro Gly
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 tgctagctct gctttttatg caggagaaaa gccagagatt cactgtgtgt cagaacaact 421
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 agcccaccgc aggctgaagg cattgcgcgt agtccatgcc cgtagaggaa gtgtgcag 178
 atg gga tta acg tcc aca tgg aga tat gga aga gga ccg ggg att ggt 226
 Met Gly Leu Thr Ser Thr Trp Arg Tyr Gly Arg Gly Pro Gly Ile Gly
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50 acc gta acc atg gtc agc tgg ggt cgt ttc atc tgc ctg gtc gtg gtc 274
 Thr Val Thr Met Val Ser Trp Gly Arg Phe Ile Cys Leu Val Val Val
 -20 -15 -10

acc atg gca acc ttg tcc ctg gcc cgg ccc tcc ttc agt tta gtt gag 322
 Thr Met Ala Thr Leu Ser Leu Ala Arg Pro Ser Phe Ser Leu Val Glu
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gat acc aca tta gag cca gaa gat gcc atc tca tcc gga gat gat gag 370
 Asp Thr Thr Leu Glu Pro Glu Asp Ala Ile Ser Ser Gly Asp Asp Glu
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gat gac acc gat ggt gcg gaa gat ttt gtc agt gag aac agt aac aac 418
 60 Asp Asp Thr Asp Gly Ala Glu Asp Phe Val Ser Glu Asn Ser Asn Asn
 25 30 35 40

aag agt aag taactgccc gctccgatgg tccccgagag aggagcatgg 467
 Lys Ser Lys

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cggcccttgc ctttccccgc tgtgtctact ttcctgactt tcaaacctga gaataaacca 587
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  Pro Thr Ser Arg Ser Ala Ala Leu Leu Gly Gly Arg Trp Leu Gln Pro
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  cgg gcc tgg ctg ggg ttc cca gac gcc tgg ggc ctc ccc acc ccg cag 147
  Arg Ala Trp Leu Gly Phe Pro Asp Ala Trp Gly Leu Pro Thr Pro Gln
  15 20 25
30 cag gcc cgg ggc aag gct cgc ggg aat gag tat cag ccg agc aat atc 195
  Gln Ala Arg Gly Lys Ala Arg Gly Asn Glu Tyr Gln Pro Ser Asn Ile
  30 35 40
  aaa cgc aag aac aag cac ggc tgg gtc cgg cgc ctg agc acg ccg gcc 243
35 Lys Arg Lys Asn Lys His Gly Trp Val Arg Arg Leu Ser Thr Pro Ala
  45 50 55
  ggc gtg cag gtc atc ctt cgc cga atg ctc aag ggc cgc aag tcg ctg 291
  Gly Val Gln Val Ile Leu Arg Arg Met Leu Lys Gly Arg Lys Ser Leu
  60 65 70 75
40 agc cat tgaggatcgc gacgcagtcg gcggggaccc tcatggaagc atcgccctcg 347
  Ser His
  cctcggacct tgccctggcgc tattttttgca gggagctggg gaggaggaac gcctcggacc 407
  tgagtgtctct ccatattgtg ggtttgaagt ctggatggga gccttgccaa gtcccttttt 467
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	Gly	Trp	Arg	Arg	Phe	Glu	Arg	Leu	Trp	Ala	Gly	Ser	Leu	Ser	Ser	Arg	
10				-25				-20				-15					
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	Ser	Leu	Ala	Leu	Ala	Ala	Ala	Pro	Ser	Ser	Asn	Gly	Ser	Pro	Trp	Arg	
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15	Leu	Leu	Gly	Ala	Leu	Cys	Leu	Gln	Arg	Pro	Pro	Val	Val	Ser	Lys	Pro	
	5				10					15					20		
	ttg	acc	cca	ttg	cag	gaa	gag	atg	gcg	tct	cta	ctg	cag	cag	att	gag	242
	Leu	Thr	Pro	Leu	Gln	Glu	Glu	Met	Ala	Ser	Leu	Leu	Gln	Gln	Ile	Glu	
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20	ata	gag	aga	agc	ctg	tat	tca	gac	cac	gag	ctt	cgt	gct	ctg	gat	gaa	290
	Ile	Glu	Arg	Ser	Leu	Tyr	Ser	Asp	His	Glu	Leu	Arg	Ala	Leu	Asp	Glu	
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	Asn	Gln	Arg	Leu	Ala	Lys	Lys	Lys	Ala	Asp	Leu	His	Asp	Glu	Glu	Asp	
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	Glu	Gln	Asp	Ile	Leu	Leu	Ala	Gln	Asp	Leu	Glu	Asp	Met	Trp	Glu	Gln	
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30	Lys	Phe	Leu	Gln	Phe	Lys	Leu	Gly	Ala	Arg	Ile	Thr	Glu	Ala	Asp	Glu	
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	Lys	Asn	Asp	Arg	Thr	Ser	Leu	Asn	Arg	Asn	Leu	Asp	Arg	Asn	Leu	Val	
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	Thr	Leu	Ala	Thr	Leu	Ser	Glu	Asn	Asn	Met	Glu	Ala	Lys	Phe	Leu	Gly	
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45	Asn	Ala	Pro	Cys	Gly	His	Tyr	Thr	Phe	Lys	Phe	Pro	Gln	Ala	Met	Arg	
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	Val	Ile	Lys	Asp	Glu	Leu	Gly	Asp	Tyr	Leu	Lys	Pro	Lys	Tyr	Leu	Ala	
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   Gln Glu His Met Leu Leu Thr Pro Leu Thr Ala Leu Met Val Gly Ala
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   gct tct ctg ctt gag ggc cgg cca cag atc tca gct cca tac tcc cga      149
   Ala Ser Leu Leu Glu Gly Arg Pro Gln Ile Ser Ala Pro Tyr Ser Arg
25 -5                                1                                5                                10
   gct gca tgt tgc agc cct ggg gca ctg gga tgt cct gca gct cgg gtt      197
   Ala Ala Cys Cys Ser Pro Gly Ala Leu Gly Cys Pro Ala Ala Arg Val
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   ggg att ctg gat ctg atg tat tcc tgg gtt gcc agg aaa gtg ctc agg      245
30 Gly Ile Leu Asp Leu Met Tyr Ser Trp Val Ala Arg Lys Val Leu Arg
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   tgc agc aat act ggg ctg cag ggg ctg cac tgt gca cca gct tat gca      293
   Cys Ser Asn Thr Gly Leu Gln Gly Leu His Cys Ala Pro Ala Tyr Ala
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35 gca cag ctt ggt atg gac cct ggg agg ggc caa cga gca gga ggg cct      341
   Ala Gln Leu Gly Met Asp Pro Gly Arg Gly Gln Arg Ala Gly Gly Pro
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   gta gag cag aca tac ttc agt ccc atg ggg aag ctg ccc act ctt tcg      389
   Val Glu Gln Thr Tyr Phe Ser Pro Met Gly Lys Leu Pro Thr Leu Ser
40 75                                80                                85                                90
   tgg ctg gaa ggc tgt aca gca gtc atg acg ctg gca tct gct tgg ctt      437
   Trp Leu Glu Gly Cys Thr Ala Val Met Thr Leu Ala Ser Ala Trp Leu
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   ctg ggg agc cct cgg gaa act tac aat cat gag aag gtg aag gag aag      485
45 Leu Gly Ser Pro Arg Glu Thr Tyr Asn His Glu Lys Val Lys Glu Lys
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   cag tgt cca ttc tcc agt atg gtt ttg ggg gag tat ggc ttc cta cct      533
   Gln Cys Pro Phe Ser Ser Met Val Leu Gly Glu Tyr Gly Phe Leu Pro
                                125                                130                                135

50 act gtg gac cac ctg tca act ctg ggc tgt aac atg aga gaa ttg      578
   Thr Val Asp His Leu Ser Thr Leu Gly Cys Asn Met Arg Glu Leu
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Ile Arg Gly
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Met Ala Gln

35 cca gca gcc ccc tcc ctg acg cgg ccc ttc ctg gca gag gcc ccg aca 166
Pro Ala Ala Pro Ser Leu Thr Arg Pro Phe Leu Ala Glu Ala Pro Thr
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Ala Leu Val Pro His Ser Pro Leu Pro Gly Ala Leu Ser Ser Ala Pro

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Gly Pro Lys Gln Pro Pro Thr Ala Ser Thr Gly Pro Glu Leu Leu Leu
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Val Ser Ser Gln Arg Ala Thr Pro Arg Asp Lys Pro Xaa Gly Pro Leu
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Ile Pro Gly Gln Cys Pro
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  Gly Ala Val Arg Ala Leu Arg Leu Ile Gly Trp Ala Ser Arg Ser Leu
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  His Pro Leu Pro Gly Ser Arg Asp Arg Ala His Pro Ala Ala Glu Glu
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  Glu Asp Asp Pro Asp Arg Pro Ile Glu Phe Ser Ser Ser Lys Ala Asn
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  Pro His Arg Trp Ser Val Gly His Thr Met Gly Lys Gly His Gln Arg
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  Ile Trp Cys Tyr Leu Arg Glu Glu Ser Glu Ala Asp Gln Trp Leu Arg
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  Gln Val Trp Gly Glu Val Pro Glu Pro Ser Asp Arg Ser Glu Glu Pro
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  Glu Thr Pro Ala Ala Tyr Arg Ala Arg Thr
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Gln Asn Met Ile Arg Arg Leu Glu Ile Asp Ala Glu Asn His Tyr Trp
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Leu Ser Met Pro Tyr Met Thr Arg Glu Gln Glu Arg Gly His Ala Xaa
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Xaa Arg Arg Arg Glu Ala Phe Glu Ala Ile Lys Ala Ala Ala Thr Ser
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Val Thr Lys Lys Trp Ser
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Met Gly Ile
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Lys Thr Ala Leu Pro Ala Ala Glu Leu Gly Leu Tyr Ser Leu Val Leu
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55  Ser Gly Ala Leu Ala Tyr Ala Gly Arg Gly Leu Leu Glu Ala Ser Gln
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gat ggg gcc cac agg aag gcc ttc cgg gag tct gtg cga cct ggc tgg      259
Asp Gly Ala His Arg Lys Ala Phe Arg Glu Ser Val Arg Pro Gly Trp
      15          20          25
60  gag tac att ggc cgg aag atg gat gtg gct gac ttc gag tgg gtg atg      307
Glu Tyr Ile Gly Arg Lys Met Asp Val Ala Asp Phe Glu Trp Val Met
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                                   Met Leu Ala Leu Phe His Phe His Leu Pro Pro Trp Asp Asp
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   Ala Val Arg Arg Pro Ser Val Asp Ala Ser Pro Ser Thr Leu Asn Phe
                                   15 20 25 30
   cca gac gca gaa ctt tat gcc tcc att ttc ctc tgc tgc atg gcc cca 205
   Pro Asp Ala Glu Leu Tyr Ala Ser Ile Phe Leu Cys Cys Met Ala Pro
                                   35 40 45
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   Gly Glu Ile Leu Ile Ser Phe Leu Thr Leu Val Gln Ile Ala His Ala
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60   Asn Gly Arg Gly Cys Asn Thr Pro Ala Cys Gly Ala Ala Ala Cys Val
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   tgg cat gaa aat tca caa gaa gag agg aaa tac tgaggagaaa atggcagatt 354
   Trp His Glu Asn Ser Gln Glu Glu Arg Lys Tyr

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[illegible]

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	ccagggccct gccagtccc aggtggaagg tatccctggg ccctggcact gattatagga	498
	cactgggcaa gacactgcac cgccacgtga ctcagtttcc ccatctgcct gatgggtgtt	558
	gctgtgagaa ttatgaaatg aaatgatgac catgaaaata ttgtagaagc caagaaatgc	618
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	taggaaacct tg atg gct tat ttg gat gac aaa ggt tcc ctt ttg gcg ata	171
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	1 5 10	
	cat agc cat gcg aga caa cat agc cat gaa aca aac caa gtc cac cag	219
	His Ser His Ala Arg Gln His Ser His Glu Thr Asn Gln Val His Gln	
	15 20 25	
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	Trp Leu Pro Arg Asn Thr Phe Ala Phe Leu Ile Lys Glu Asp Arg Cys	
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	agt tgc aga agt acc tgt gcc tct ttt tct ttt tct tct tct ttt tct	315
	Ser Cys Arg Ser Thr Cys Ala Ser Phe Ser Phe Ser Ser Ser Phe Ser	
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	ttt tta atc tct taaatgcaga tataagaact ggtactgaag cagccatctt	367
	Phe Leu Ile Ser	
	65	
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	Lys Lys Thr Asn Thr Tyr Glu Glu Ser Asn Ala Gly Asn Glu Gly Gln	
	15 20 25	
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60	Lys Glu Ala Ile Ser Ile Cys Ile Cys Arg Arg Asp Gly Leu Leu Pro	
	30 35 40	
	ctg tgg gta acc agg tta tca gat ttg gtg ttt tcc aaa gaa aag gca	195
	Leu Trp Val Thr Arg Leu Ser Asp Leu Val Phe Ser Lys Glu Lys Ala	

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5  aaa gag atg aag act tct tcc agg aac ctg agg tac ttc att gtc tgc 291
Lys Glu Met Lys Thr Ser Ser Arg Asn Leu Arg Tyr Phe Ile Val Cys
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aga gat gcc tca tcc tac acc cct cag tca ctc ata tct gga tac att 339
Arg Asp Ala Ser Ser Tyr Thr Pro Gln Ser Leu Ile Ser Gly Tyr Ile
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Gly Pro Cys Gln His Gln
      110
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Thr Asn Ile Arg Asn Val Glu Arg Leu Lys Asp Leu Arg Ala Ser
      20              25              30
tat tgc ctc atc gac agc ttc ctg ggg gac tcg gag ctc atc ggg gac 144
Tyr Cys Leu Ile Asp Ser Phe Leu Gly Asp Ser Glu Leu Ile Gly Asp
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Leu Thr Gln Cys Val Asp Cys Val Ile Pro Pro Glu Gly Ser Leu Leu
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40  cag atc tct agc tac ctc tac tta aat act gct ctt gtg gac ttg cct 240
Gln Ile Ser Ser Tyr Leu Tyr Leu Asn Thr Ala Leu Val Asp Leu Pro
      65              70              75
ggg gtg gcg gcc tcc cag gca tgt gac tct cag cag gtg act tgg ctt 288
Gly Val Ala Ala Ser Gln Ala Cys Asp Ser Gln Gln Val Thr Trp Leu
      80              85              90              95
45  ctc tac gtt gct aat ggt gcc tac tcg gca tgt aac agg cct gga 333
Leu Tyr Val Ala Asn Gly Ala Tyr Ser Ala Cys Asn Arg Pro Gly
      100              105              110
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taatcagatt tcacagactt cacagtgtga gttggggatg tgacttcgta tgaaagttaa 453
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	1				5					10				15			
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	Leu	Gly	Leu	Arg	Pro	Val	Lys	Gln	Val	Arg	Val	Gln	Phe	Cys	Pro	Phe	
				20					25					30			
	gag	aaa	aac	gtg	gaa	tcg	acg	agg	acc	ttc	ctg	cag	acg	gtg	agc	agt	144
	Glu	Lys	Asn	Val	Glu	Ser	Thr	Arg	Thr	Phe	Leu	Gln	Thr	Val	Ser	Ser	
10				35					40					45			
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	Glu	Lys	Val	Arg	Ser	Thr	Asn	Leu	Asn	Cys	Ser	Val	Ile	Ala	Asp	Val	
		50						55					60				
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15	Arg	His	Asp	Gly	Ser	Glu	Pro	Cys	Val	Asp	Val	Leu	Phe	Gly	Asp	Gly	
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	cat	cgc	ctg	att	atg	cgc	ggc	gct	cat	ctc	acc	gct	ctg	gaa	atg	ctc	288
	His	Arg	Leu	Ile	Met	Arg	Gly	Ala	His	Leu	Thr	Ala	Leu	Glu	Met	Leu	
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	Thr	Ala	Phe	Ala	Ser	His	Ile	Arg	Ala	Arg	Asp	Ala	Ala	Gly	Ser	Gly	
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	gac	aag	ccg	ggc	gct	gat	act	ggg	cgc	tgacagcgcc	aaagagacca						383
	Asp	Lys	Pro	Gly	Ala	Asp	Thr	Gly	Arg								
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	Thr	Phe	Arg	Ala	Ala	Ser	Ala	Pro	Thr	Leu	Val	Ala	Arg	Arg	Gly	Phe	
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	Gln	Ser	Thr	Arg	Ala	Gln	Met	Ala	Ser	Pro	Tyr	His	Tyr	Pro	Glu	Gly	
				25					30					35			
	cct	cgc	agc	aac	ttg	cca	ttc	gac	ccg	ctg	aag	aag	ggc	ttt	gct	ttc	199
50	Pro	Arg	Ser	Asn	Leu	Pro	Phe	Asp	Pro	Leu	Lys	Lys	Gly	Phe	Ala	Phe	
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	aag	tac	tgg	ggc	ttt	atg	ggc	acc	gga	ttc	gcc	ctt	ccc	ttc	ctc	ctt	247
	Lys	Tyr	Trp	Gly	Phe	Met	Gly	Thr	Gly	Phe	Ala	Leu	Pro	Phe	Leu	Leu	
		55					60					65					
55	gct	gtc	tgg	caa	aca	gaa	caa	gcc	gta	aat	gcg	ctg	aga	cac	ggc	gtg	295
	Ala	Val	Trp	Gln	Thr	Glu	Gln	Ala	Val	Asn	Ala	Leu	Arg	His	Gly	Val	
		70				75				80						85	
	gac	atg	cgt	atc	ggg	atc	ccg	ggg	aac	acg	gca	ttt	gta	gat			337
	Asp	Met	Arg	Ile	Gly	Ile	Pro	Gly	Asn	Thr	Ala	Phe	Val	Asp			
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	taggtggagg	gcccgcatac	ggctatacta	gacatcacag	catcaatttc	attgtctgtc											397
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	aaaaaa																462

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 Ser Ala Ile Thr Ser Tyr Glu Lys Phe Leu Thr Pro Glu Glu Pro Phe
 20 25 30
 cca ctc ctg gga cct cct cgc ggg gtg ggc acc tgc ccg agc gag gag 144
 Pro Leu Leu Gly Pro Pro Arg Gly Val Gly Thr Cys Pro Ser Glu Glu
 20 35 40 45
 ccg ggc tgc ctg gac atc agc gac ttc ggc tgc cag ctg tcc tcc tgc 192
 Pro Gly Cys Leu Asp Ile Ser Asp Phe Gly Cys Gln Leu Ser Ser Cys
 50 55 60
 cat cgc acc gac ccg ctc cac cgc ttc cac acc aac agg tgg aac cta 240
 25 His Arg Thr Asp Pro Leu His Arg Phe His Thr Asn Arg Trp Asn Leu
 65 70 75 80
 act tct tgt gga aca agt gtt gcc agc tca gaa ggc agt gag gag ctg 288
 Thr Ser Cys Gly Thr Ser Val Ala Ser Ser Glu Gly Ser Glu Glu Leu
 85 90 95
 30 ttt tca tct gtg tct gtt gga gat caa gat gat tgc tat tcc ctg tta 336
 Phe Ser Ser Val Ser Val Gly Asp Gln Asp Asp Cys Tyr Ser Leu Leu
 100 105 110
 gat gat cag gac ttc act tct ttt gat tta ttt cct gag ggg agt gtc 384
 Asp Asp Gln Asp Phe Thr Ser Phe Asp Leu Phe Pro Glu Gly Ser Val
 115 120 125
 35 tgc agt gat gtc tct tct tct att agc act tac tgg gat tgg tca gat 432
 Cys Ser Asp Val Ser Ser Ser Ile Ser Thr Tyr Trp Asp Trp Ser Asp
 130 135 140
 agc gag ttt gaa tgg cag tta cca ggc agt gac att gcc agt ggg agt 480
 40 Ser Glu Phe Glu Trp Gln Leu Pro Gly Ser Asp Ile Ala Ser Gly Ser
 145 150 155 160
 gat gta ctt tct gat gtc ata ccc agt att cca agt tca cct tgc ctg 528
 Asp Val Leu Ser Asp Val Ile Pro Ser Ile Pro Ser Ser Pro Cys Leu
 165 170 175
 45 ctt cct aaa aaa aaa aaa aa 551
 Leu Pro Lys Lys Lys Lys Lys
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5	atc act tcc tac gag aag ttt cta acc ccc gag gag ccc ttc cca ctc	102
	Ile Thr Ser Tyr Glu Lys Phe Leu Thr Pro Glu Glu Pro Phe Pro Leu	
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	ctg gga cct cct cgc ggg gtg ggc acc tgc ccg agc gag gag ccg ggc	150
	Leu Gly Pro Pro Arg Gly Val Gly Thr Cys Pro Ser Glu Glu Pro Gly	
	25 30 35	
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	Cys Leu Asp Ile Ser Asp Phe Gly Cys Gln Leu Ser Ser Cys His Arg	
	40 45 50 55	
	acc gac ccg ctc cac cgc ttc cac acc aac agg tgg aac cta act tct	246
	Thr Asp Pro Leu His Arg Phe His Thr Asn Arg Trp Asn Leu Thr Ser	
15	60 65 70	
	tgt gga aca agt gtt gcc agc tca gaa ggc agt gag gag ctg ttt tca	294
	Cys Gly Thr Ser Val Ala Ser Ser Glu Gly Ser Glu Glu Leu Phe Ser	
	75 80 85	
20	tct gtc tgt tgg aga tca aga tgattgctat tccctggttag atgatcagga	345
	Ser Val Cys Trp Arg Ser Arg	
	90	
	cttcacttct tttgatttat ttcctgaggg gagtgtctgc agtgatgtct cttcttctat	405
	tagcacttac tgggattggt cagatagcga gtttgaatgg cagttaccag gcagtgcacat	465
	tgccagtggg agtgatgnta ctttctgatg tcatacccag tattccaagt tcaccttgcc	525
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40	ctg agc gac cca gcc cgc gag cga ggt gag atg ccg gtg gcc gtg ggt	96
	Leu Ser Asp Pro Ala Arg Glu Arg Gly Glu Met Pro Val Ala Val Gly	
	20 25 30	
	ccc tac gga cag tcc cag cca agc tgc ttc gac cgt gtc aaa atg ggc	144
	Pro Tyr Gly Gln Ser Gln Pro Ser Cys Phe Asp Arg Val Lys Met Gly	
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	ttc gtg atg ggt tgc gcc gtg ggc atg gcg gcc ggg gcg ctc ttc ggc	192
	Phe Val Met Gly Cys Ala Val Gly Met Ala Ala Gly Ala Leu Phe Gly	
	50 55 60	
	acc ttt tcc tgt ctc agg atc gga atg cgg ggt cga gag ctg atg ggc	240
50	Thr Phe Ser Cys Leu Arg Ile Gly Met Arg Gly Arg Glu Leu Met Gly	
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	ggc att ggg aaa acc atg atg cag agt ggc ggc acc ttt ggc aca ttc	288
	Gly Ile Gly Lys Thr Met Met Gln Ser Gly Gly Thr Phe Gly Thr Phe	
	85 90 95	
55	atg gcc att ggg atg ggc atc cga tgc taaccatggt tgccaactac	335
	Met Ala Ile Gly Met Gly Ile Arg Cys	
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	atctgtccct tcccatcaat cccagcccat gtactaataa aagaaagtct ttgagcaaaa	395
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                               1                               5
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Pro Gly Asp Pro Gly Ala Leu Leu Glu Asp Val Ala His Asn Pro Arg
                               10                               15                               20
15 ccc cgg agg att gcc cag cga ggc cgg aac acc agc agg atg gca gag      210
Pro Arg Arg Ile Ala Gln Arg Gly Arg Asn Thr Ser Arg Met Ala Glu
                               25                               30                               35
gac acc tcc cca aac atg aat gac aac atc ctg ttg cct gtc cgc aac      258
Asp Thr Ser Pro Asn Met Asn Asp Asn Ile Leu Leu Pro Val Arg Asn
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Asn Asp Gln Ala Leu Gly Leu Thr Gln Cys Met Leu Gly Cys Val Ser
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25 tgg ttc acc tgt ttt gcc tgc tcc ctg aga act cag gcc cag cag gtt      354
Trp Phe Thr Cys Phe Ala Cys Ser Leu Arg Thr Gln Ala Gln Gln Val
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Leu Phe Asn Thr Cys Arg Cys Lys Leu Leu Cys Gln Lys Leu Met Glu
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30 aag aca ggc att ctg ctc ctc tgt gct ttc ggt gtg tcc cag ggc cct      450
Lys Thr Gly Ile Leu Leu Cys Ala Phe Gly Val Ser Gln Gly Pro
                               105                               110                               115
gcc cag tcc cag gtg gag gta tcc ctg ggc cct ggc act gat tat agg      498
Ala Gln Ser Gln Val Glu Val Ser Leu Gly Pro Gly Thr Asp Tyr Arg
35 120                               125                               130                               135
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Thr Leu Gly Lys Thr Leu His Cys His Val Thr Gln Phe Pro His Leu
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cct gat ggg tgt tgc tgt gag aat tat gaa atg aaa tgatgaccat      592
40 Pro Asp Gly Cys Cys Cys Glu Asn Tyr Glu Met Lys
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ctccccctca gccgtggtgg tggagatggg gtccaagcct gccctcacgg gggagcccgc      480
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5	Pro Ala Ser Ala Pro Pro Ser Ile Leu Val Lys Pro Glu Asn Ser Arg	
	20 25 30	
	aat gga atc gaa aag caa gtc aaa acc gtg aga ttt cag aat tac agc	683
	Asn Gly Ile Glu Lys Gln Val Lys Thr Val Arg Phe Gln Asn Tyr Ser	
	35 40 45	
10	cct cct ccc acc aaa cat tac acc tcc cat ccc acc tcc gga aag cct	731
	Pro Pro Pro Thr Lys His Tyr Thr Ser His Pro Thr Ser Gly Lys Pro	
	50 55 60	
	gaa cag cca gcc acc ctc aag gcg tcc cag cct gaa gca gcg tcc ttg	779
	Glu Gln Pro Ala Thr Leu Lys Ala Ser Gln Pro Glu Ala Ala Ser Leu	
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	ggc cca gag atg acc gtc cta ttt gcc cac cga agt ggc tgc cac tcc	827
	Gly Pro Glu Met Thr Val Leu Phe Ala His Arg Ser Gly Cys His Ser	
	85 90 95	
	gga cag cag aca gac ctc cgg aga aag tca gct ctt gcc aag gcc aca	875
20	Gly Gln Gln Thr Asp Leu Arg Arg Lys Ser Ala Leu Ala Lys Ala Thr	
	100 105 110	
	acc ctg gtg tcc act gcc tca ggc acg cag acc gtg ttt ccc agc aaa	923
	Thr Leu Val Ser Thr Ala Ser Gly Thr Gln Thr Val Phe Pro Ser Lys	
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40	Met Leu Thr Arg Val Glu Glu Gln Lys Lys Met Val	
	1 5 10	
	aag gcc tgc agg tat agg tgt tca gca tgt cat ctg aaa tat tcc cca	160
	Lys Ala Cys Arg Tyr Arg Cys Ser Ala Cys His Leu Lys Tyr Ser Pro	
	15 20 25	
45	cag agg caa aaa gaa agg aaa tta tct ctg aaa agg ggg agg aca agt	208
	Gln Arg Gln Lys Glu Arg Lys Leu Ser Leu Lys Arg Gly Arg Thr Ser	
	30 35 40	
	cag cag aat atg tca atg ttt tgg ttg aag aag ctg ctt gaa tct ggg	256
	Gln Gln Asn Met Ser Met Phe Trp Leu Lys Lys Leu Leu Glu Ser Gly	
50	45 50 55 60	
	ctt ttc tgt gcc atg tgt tct ccc agg gcc agc aca aag aag ggc ttt	304
	Leu Phe Cys Ala Met Cys Ser Pro Arg Ala Ser Thr Lys Lys Gly Phe	
	65 70 75	
	tgg tgc agg ccc aag acc acc ata atc atc att gat tat tcc tct cca	352
55	Trp Cys Arg Pro Lys Thr Thr Ile Ile Ile Asp Tyr Ser Ser Pro	
	80 85 90	
	cgc cag tgt ctc taaataaact ttctcttctt tctctgaaaa aaaaaaaaaa	404
	Arg Gln Cys Leu	
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	Met Gly Lys Ile Ala Leu Gln Leu Lys Ala Thr Leu Glu Asn Ile						
	1 5 10 15						
	acc aac ctc cgg ccc gtg ggc gag gac ttc cgg tgg tac ctg aag atg	157					
	Thr Asn Leu Arg Pro Val Gly Glu Asp Phe Arg Trp Tyr Leu Lys Met						
15	20 25 30						
	aaa tgt ggc aac tgt ggt gag att tcg gac aag tgg cag tac atc cgg	205					
	Lys Cys Gly Asn Cys Gly Glu Ile Ser Asp Lys Trp Gln Tyr Ile Arg						
	35 40 45						
20	ctg atg gac agt gtg gca ctg aag ggg ggc cgt ggc agt gct tcc atg	253					
	Leu Met Asp Ser Val Ala Leu Lys Gly Gly Arg Gly Ser Ala Ser Met						
	50 55 60						
	gtc cag aag tgc aag ctg tgt gca aga gaa aat tcc atc gag att tta	301					
	Val Gln Lys Cys Lys Leu Cys Ala Arg Glu Asn Ser Ile Glu Ile Leu						
	65 70 75						
25	agc agc acc atc aag cct tac aat gct gaa gac aat gag aac ttc aag	349					
	Ser Ser Thr Ile Lys Pro Tyr Asn Ala Glu Asp Asn Glu Asn Phe Lys						
	80 85 90 95						
	aca ata gtg gag ttt gag tgc cgg ggc ctt gaa cca gtt gat ttc cag	397					
	Thr Ile Val Glu Phe Glu Cys Arg Gly Leu Glu Pro Val Asp Phe Gln						
30	100 105 110						
	cgc cas gwg rtw ttg ctg ctg aag gtg tgg agt cag gga cag cct tca	445					
	Pro Xaa Xaa Xaa Leu Leu Leu Lys Val Trp Ser Gln Gly Gln Pro Ser						
	115 120 125						
	gtg aca tta atc tgc agg aga agg act ggg act gac tat gat gaa aag	493					
35	Val Thr Leu Ile Cys Arg Arg Arg Thr Gly Thr Asp Tyr Asp Glu Lys						
	130 135 140						
	gcc cag gag tct gtg gga atc tat gag gtc acc cac cag ttt gtg aag	541					
	Ala Gln Glu Ser Val Gly Ile Tyr Glu Val Thr His Gln Phe Val Lys						
	145 150 155						
40	tgc tgatccctct tccttcccag ttgcccttaa gaactgagaa aggacaaagt	594					
	Cys						
	160						
	actctaagca gcagagccca cagaggctcg ttcctttgac ccttggtctcc tgggtggctat	654					
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<220>

<221> CDS

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<400> 208

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	tgggcccccc	actccccgcc	gcaagtctctg	aggatggcca	gcagagaaac	aagaaa atg	119
						Met	
60						1	
	gac tcc ctg gct gct gga gag ttg aat gcc agc cac cag cca tgg gtg	167					
	Asp Ser Leu Ala Ala Gly Glu Leu Asn Ala Ser His Gln Pro Trp Val						
	5 10 15						

	cca gag ttt gta gcc tat tgg agg aaa aca cac caa gat cac ctc tgc	215
	Pro Glu Phe Val Ala Tyr Trp Arg Lys Thr His Gln Asp His Leu Cys	
	20 25 30	
5	agc ctg cac agc cgg gcc ttt gga ctc ctg gat gct aga gtg acc tgg	263
	Ser Leu His Ser Arg Ala Phe Gly Leu Leu Asp Ala Arg Val Thr Trp	
	35 40 45	
	gcg ctg agg agg gcc ccc gag cca gta cca gga aag gat aga ctc ctg	311
	Ala Leu Arg Arg Ala Pro Glu Pro Val Pro Gly Lys Asp Arg Leu Leu	
	50 55 60 65	
10	ctt gca gca ttc cca gca gag gca tcg cct gtg gac acc gcg tct gtg	359
	Leu Ala Ala Phe Pro Ala Glu Ala Ser Pro Val Asp Thr Ala Ser Val	
	70 75 80	
	tct gta tat ggc aga gct ccc aga tat atg cac aag gga gtg aaa aaa	407
	Ser Val Tyr Gly Arg Ala Pro Arg Tyr Met His Lys Gly Val Lys Lys	
15	85 90 95	
	tgt gtt tgc acc cca gtc tct aaa aat tca aca gcc tgg tta ctt ctg	455
	Cys Val Cys Thr Pro Val Ser Lys Asn Ser Thr Ala Trp Leu Leu Leu	
	100 105 110	
20	ggg ggt ata tcg taggtggcct taatacgtgt tatttgetca tctgtatttc	507
	Gly Gly Ile Ser	
	115	
	ttactctttg cacaattaaa ccatgttcct tttacttatg tacattttta ataaaagaaa	567
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	ggcccgcggtt tctcagggtc ttcctaattcc cctgggcttt ccggttctgct gtgtgcctgg	180
	agtcaggccg ccgtgcggca ggctgttaac ctagcctcgg ggagagtggg atggagccac	240
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	gaaccacagg atgcgtgaat cggctctcctt gtcttcatgg gcacatcccg ccagggtggt	420
	gtcttctgct gtgattagt ggctcactggc aagtgtctga atgaagtga gggtccgggtg	480
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	ctccaggaat ccagggtctc agcccctgct ttagaaggaa gtccctgacgg ccacgctgga	600
45	tctggaggac gtccggagct acagggcgga gatttcatct cgaaacctgg cggccagcag	660
	ggcagagcccc taccacagag tgaagtgga ctttgccctc tcgtgccacg aggacttget	720
	ggcaccatc tctgagccca tcgagtggaa ataccacagc cctgaggagg agataagcct	780
	tggacctgcc tgctggctct gggatttttt aagacgaagt caacaggcag ggtttttgct	840
	gcccttgagt ggcggggtgg acagcgcagc caccgcctgc ctcatctact cc atg tgc	898
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	Met Cys	
	1	
	tgc cag gtc tgc gag gcc gtg agg agt gga aat gag gaa gtg ctg gct	946
	Cys Gln Val Cys Glu Ala Val Arg Ser Gly Asn Glu Glu Val Leu Ala	
	5 10 15	
55	gat gtc cgc acc atc gtg aac cag atc agc tac acc ccc cag gat ccc	994
	Asp Val Arg Thr Ile Val Asn Gln Ile Ser Tyr Thr Pro Gln Asp Pro	
	20 25 30	
	cga gac ctc tgt gga cgc ata ctg acc acc tgc tac atg gcc agc aag	1042
	Arg Asp Leu Cys Gly Arg Ile Leu Thr Thr Cys Tyr Met Ala Ser Lys	
60	35 40 45 50	
	aac tcc tcc cag gag acg tgc acc cgg gcc aga gag ttg gcc cag cag	1090
	Asn Ser Ser Gln Glu Thr Cys Thr Arg Ala Arg Glu Leu Ala Gln Gln	
	55 60 65	

	att gga agc cac cac atc agt ctc aac atc gat cca gcc gtg aag gcc	1138
	Ile Gly Ser His His Ile Ser Leu Asn Ile Asp Pro Ala Val Lys Ala	
	70 75 80	
5	gtc atg ggc atc ttc agc ctg gtg acg ggg aag agc cct ctg ttt gca	1186
	Val Met Gly Ile Phe Ser Leu Val Thr Gly Lys Ser Pro Leu Phe Ala	
	85 90 95	
	gct cat gga gga agc agc agg gaa aac ctg gcg ctg caa aat gtg cag	1234
	Ala His Gly Gly Ser Ser Arg Glu Asn Leu Ala Leu Gln Asn Val Gln	
	100 105 110	
10	gct cga ata cgg atg gtc ctc gcc tat ctg ttt gct cag ttg agc ctc	1282
	Ala Arg Ile Arg Met Val Leu Ala Tyr Leu Phe Ala Gln Leu Ser Leu	
	115 120 125 130	
	tgg tct cgg ggt gtc cac ggt ggg ctc ctc gtg ctg gga tcc gcc aac	1330
	Trp Ser Arg Gly Val His Gly Gly Leu Leu Val Leu Gly Ser Ala Asn	
15	135 140 145	
	gtg gat gag agt ctc ctg ggc tac ctg acc aag tac gac tgc tcc agt	1378
	Val Asp Glu Ser Leu Leu Gly Tyr Leu Thr Lys Tyr Asp Cys Ser Ser	
	150 155 160	
20	gcg gac atc aac ccc ata ggc ggg atc agc aag acg gac ctc agg gcc	1426
	Ala Asp Ile Asn Pro Ile Gly Gly Ile Ser Lys Thr Asp Leu Arg Ala	
	165 170 175	
	ttc gtc cag ttc tgc atc cag cgc ttc cag ctt cct gcc ctg cag agc	1474
	Phe Val Gln Phe Cys Ile Gln Arg Phe Gln Leu Pro Ala Leu Gln Ser	
	180 185 190	
25	atc ctg ttg gcg ccg gcc acc gca gag ctg gag ccc ttg gct gat gga	1522
	Ile Leu Leu Ala Pro Ala Thr Ala Glu Leu Glu Pro Leu Ala Asp Gly	
	195 200 205 210	
	cag gtg tcc cag acc gac gag gaa gat atg ggg atg aca tat gcg gag	1570
	Gln Val Ser Gln Thr Asp Glu Glu Asp Met Gly Met Thr Tyr Ala Glu	
30	215 220 225	
	ctc tgc gtc tat ggg aaa ctc agg aag gtg gcc aag atg ggg ccc tac	1618
	Leu Ser Val Tyr Gly Lys Leu Arg Lys Val Ala Lys Met Gly Pro Tyr	
	230 235 240	
35	agc atg ttc tgc aaa ctc ctc ggc atg tgg aga cac atc tgc acc ccg	1666
	Ser Met Phe Cys Lys Leu Leu Gly Met Trp Arg His Ile Cys Thr Pro	
	245 250 255	
	aga cag gtc gct gac aaa gtg aag cgg ttt ttc tcc aag tac tcc atg	1714
	Arg Gln Val Ala Asp Lys Val Lys Arg Phe Phe Ser Lys Tyr Ser Met	
	260 265 270	
40	aac aga cac aag atg acc acg ctc aca ccc gcg tac cac gcc gag aac	1762
	Asn Arg His Lys Met Thr Thr Leu Thr Pro Ala Tyr His Ala Glu Asn	
	275 280 285 290	
	tac agc cct gag gac aac agg ttt gat ctg cga cca ttt ctg tac aac	1810
	Tyr Ser Pro Glu Asp Asn Arg Phe Asp Leu Arg Pro Phe Leu Tyr Asn	
45	295 300 305	
	aca agc tgg cct tgg cag ttt cgg tgc ata gaa aat cag gtg cta cag	1858
	Thr Ser Trp Pro Trp Gln Phe Arg Cys Ile Glu Asn Gln Val Leu Gln	
	310 315 320	
50	ctc gag agg gca gag cca cag tcc ctg gac ggc gtg gac tgaggccggt	1907
	Leu Glu Arg Ala Glu Pro Gln Ser Leu Asp Gly Val Asp	
	325 330 335	
	tccttcctgaggaggcctcctg tcctcgggga cccagcacc tcatcatcag cattgctgga	1967
	gccaagggtta ggagccctac actaggagcc caggatggga cggcgcatca gccgagagg	2027
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<220>

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<222> 85..342

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5 ctacaattta cagttcctct atcc atg tgc tgg gtt ata aat cat gcc atc      111
      Met Cys Trp Val Ile Asn His Ala Ile
      1                      5
ctc cct aga atg aga atg cac agc aag cgg cag aca atc acc cgg cat      159
Leu Pro Arg Met Arg Met His Ser Lys Arg Gln Thr Ile Thr Arg His
10 10                      15                      20                      25
tcg gca tct ctt tct ttt cac gcg ctc cct cgc tcc gcc ttt ctc cag      207
Ser Ala Ser Leu Ser Phe His Ala Leu Pro Arg Ser Ala Phe Leu Gln
      30                      35                      40
ctc tgc ctt ctc agg cag ata cat cag ata cct tgt tta tcc atc ttc      255
15 Leu Cys Leu Leu Arg Gln Ile His Gln Ile Pro Cys Leu Ser Ile Phe
      45                      50                      55
agc tcc act ctg agg gcg cag acg cac gat tcc ggg atc ggg tgc acc      303
Ser Ser Thr Leu Arg Ala Gln Thr His Asp Ser Gly Ile Gly Cys Thr
      60                      65                      70
20 acg gcg aas cca ggc ggg aga cgg cag gag cag ctc agg taaccagggg      352
Thr Ala Xaa Pro Gly Gly Arg Gln Glu Gln Leu Arg
      75                      80                      85
aagcttgctg gccacggag atgcagccgt ggagctgtga ggaaagacgg tctggcttca      412
aaaaaaaaaa aaaaaa      428
25
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atttggtctgc taacctcaca cagctgagcc ttcc atg aaa att gct ctc tgc caa      175
      Met Lys Ile Ala Leu Cys Gln
      1                      5
40 aga gaa ctt cct agt cca agg tca tgt cta ctc tcc aga gat gtg act      223
Arg Glu Leu Pro Ser Pro Arg Ser Cys Leu Leu Ser Arg Asp Val Thr
      10                      15                      20
gga gtg att tgc acc cgg atg cct aga ctc gcc atc tgc tca aag act      271
45 Gly Val Ile Cys Thr Arg Met Pro Arg Leu Ala Ile Cys Ser Lys Thr
      25                      30                      35
gct cag aaa gcc ctc cca tgc att ccc ctg ctg cat acc agc cca ctc      319
Ala Gln Lys Ala Leu Pro Cys Ile Pro Leu Leu His Thr Ser Pro Leu
      40                      45                      50                      55
50 tgc ctg cag ctg ctg tct gca gga ctt cat atc tat gcc aca ctg tgt      367
Cys Leu Gln Leu Leu Ser Ala Gly Leu His Ile Tyr Ala Thr Leu Cys
      60                      65                      70
aaa agc tgt gct tca aga aat cac aaa aac att ttc ctg cac cta cta      415
Lys Ser Cys Ala Ser Arg Asn His Lys Asn Ile Phe Leu His Leu Leu
55 75                      80                      85
cac agc ctg agt gcg gca taagttgacc ttgcttgcta agaaatgggg      463
His Ser Leu Ser Ala Ala
      90
caagaaatgc ttttttgtat gtgtcatgtc tgtttgtttt tcaattaaga gaggaaagca      523
60 ttaggcagat ggaatgtaca tgtgaggatg aggagacaga aaacaagtag ccctttccat      583
caagatagag ggttttctgg ggttgctggc tattgaatgt cactcctgat ttctctttcc      643
aaggcactgt accaccagcc tactgagatt gtgtgggagc tttcatgggg gttgtatttc      703
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aaaaaa

769

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5 <212> DNA

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<221> CDS

10 <222> 63..386

<400> 212

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15 Met Ala Val Arg Ala Ser Phe Glu Asn Asn Cys Glu Ile Gly Cys
    1           5           10           15
    ttt gcc aag ctc acc aac acc tac tgt ctg gta gcg atc gga ggc tca 155
    Phe Ala Lys Leu Thr Asn Thr Tyr Cys Leu Val Ala Ile Gly Gly Ser
                20           25           30
20 gag aac ttc tac agt gtg ttc gag ggc gag ctc tcc gat acc atc ccc 203
    Glu Asn Phe Tyr Ser Val Phe Glu Gly Glu Leu Ser Asp Thr Ile Pro
                35           40           45
    gtg gtg cac gcg tct atc gcc ggc tgc cgc atc atc ggg cgc atg tgt 251
    Val Val His Ala Ser Ile Ala Gly Cys Arg Ile Ile Gly Arg Met Cys
25           50           55           60
    gtg gga gac aga aga aat tct ggc aga tgt gct caa ggt gga agt ctt 299
    Val Gly Asp Arg Arg Asn Ser Gly Arg Cys Ala Gln Gly Gly Ser Leu
        65           70           75
30 cag aca gac agt ggc cga cca ggt gct agt agg aag cta ctg tgt ctt 347
    Gln Thr Asp Ser Gly Arg Pro Gly Ala Ser Arg Lys Leu Leu Cys Leu
        80           85           90           95
    cag caa tca ggg agg gct ggt gca tcc caa gac ttc aat tgaagaccag 396
    Gln Gln Ser Gly Arg Ala Gly Ala Ser Gln Asp Phe Asn
        100           105
35 gatgagctgt cctctcttct tcaagtcccc cttgtggcgg ggactgtgaa ccgaggcagt 456
    gaggtgattg ctgctgggat ggtggtgaat gactggtgtg ccttctgtgg cctggacaca 516
    accagcacag agctgtcagt ggtggagagt gtcttcaagc tgaatgaagc ccagcctagc 576
    accattgcca ccagcatgcg ggattccctc attgacagcc tcacctgagt caccttccaa 636
    gttgttccat gggctcctgg ctctggactg tggccaacct tctccacatt ccgccaatc 696
40 tgtacctgat gctggcaggg aggtggcaga gagctcactg ggactgaggg gctgggcacc 756
    caaccctttt ccacctgtgc ttatcgcttg gatctatcat tactgcaaaa acctgctctg 816
    ttgtgctggc tggcaggccc tgtggctgct ggctgagggg tctgctgtcc tgtgccaccc 876
    cattaagtg cagttccctc caaaaaaaaa aaaaaaaaa 914

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<212> DNA

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50 <220>

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<222> 460..1290

<400> 213

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    ggcttggatt tggatattct caacagaaaag ggttaaaggc tgatgggtacc taaagcctgg 180
    tacttgaatt ttgatcaaga taagctgcct taagttctct tcattacaca aatgatccta 240
    gataattgat agatcctgtg gttcaactgg atttctagat agaagctgga ttcatgtgat 300
60 gccagaggag taaaatttca agagactgaa accagatctg agtttcgctg ttccagtctg 360
    gacctctttg gtgctgtaaa tcctggatat actgtagatg agtactgcgt ttttctttta 420
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<221> CDS
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<400> 214

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      1                    5                    10
    ggt tac cta acc ttc tat gga gaa gtt gaa gat gaa tta ctt cat gcc      101
    Gly Tyr Leu Thr Phe Tyr Gly Glu Val Glu Asp Glu Leu Leu His Ala
      15                    20                    25
10  tac agc aaa gtg tat aca tta gac atc cct ctt ctc atg gtt cgc ctg      149
    Tyr Ser Lys Val Tyr Thr Leu Asp Ile Pro Leu Leu Met Val Arg Leu
      30                    35                    40
15  gca gtc ctt gtg gca gta aca cta act gtg ccc att gtc ctc ttc cca      197
    Ala Val Leu Val Ala Val Thr Leu Thr Val Pro Ile Val Leu Phe Pro
      45                    50                    55
    att cgt aca tca gtg atc aca ctg tta ttt ccc aaa cga ccc ttc agc      245
    Ile Arg Thr Ser Val Ile Thr Leu Leu Phe Pro Lys Arg Pro Phe Ser
      60                    65                    70                    75
20  tgg ata cga cat ttc ctg att gca gct gtg ctt att gca ctt aat aat      293
    Trp Ile Arg His Phe Leu Ile Ala Ala Val Leu Ile Ala Leu Asn Asn
      80                    85                    90
    gtt ctg gtc atc ctt gtg cca act ata aaa tac atc ttc gga ttc ata      341
    Val Leu Val Ile Leu Val Pro Thr Ile Lys Tyr Ile Phe Gly Phe Ile
      95                    100                    105
25  ggg gct tct tct gcc act atg ctg att ttt att ctt cca gca gtt ttt      389
    Gly Ala Ser Ser Ala Thr Met Leu Ile Phe Ile Leu Pro Ala Val Phe
      110                    115                    120
    tat ctt aaa ctt gtc aag aaa gaa act ttt agg tca ccc caa aag gtc      437
    Tyr Leu Lys Leu Val Lys Lys Glu Thr Phe Arg Ser Pro Gln Lys Val
      125                    130                    135
    ggg gct tta att ttc ctt gtg gtt gga ata ttc ttc atg att gga agc      485
    Gly Ala Leu Ile Phe Leu Val Val Gly Ile Phe Phe Met Ile Gly Ser
      140                    145                    150                    155
35  atg gca ctc att ata att gac tgg att tat gat cct cca aat tcc aag      533
    Met Ala Leu Ile Ile Ile Asp Trp Ile Tyr Asp Pro Pro Asn Ser Lys
      160                    165                    170
    cat cac taacacaagg aaaaatactt tcttttttcta ttggaaatgg ttacaagtta      589
    His His
40  tactccaaaa gatatttgaa ttatcttgat tggaatgtta ttcataggaa ataacaggaa      649
    gattccaaag acgtttacca gtmatatcac caggcacctg cagaagagga aaatcactgt      709
    ttttgtcaag gatggttggtg tatgtgttta aaataaaacc tgtggtgcac aaaaaaaaaa      769
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<212> DNA
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50 <220>
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<400> 215

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	agg gat tca ggt gtg gtg ccg gtg gga act gag gaa gcg ccc aag gtt			99
	Arg Asp Ser Gly Val Val Pro Val Gly Thr Glu Glu Ala Pro Lys Val			
	15 20 25			
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	Phe Lys Met Ala Ala Ser Met His Gly Gln Pro Ser Pro Ser Leu Glu			
	30 35 40			
	gat gca aaa ctc aga aga cca atg gtc ata gaa atc ata gaa aaa aat			195
	Asp Ala Lys Leu Arg Arg Pro Met Val Ile Glu Ile Ile Glu Lys Asn			
35	45 50 55 60			
	ttt gac tat ctt aga aaa gaa atg aca caa aat ata tat caa atg gcg			243
	Phe Asp Tyr Leu Arg Lys Glu Met Thr Gln Asn Ile Tyr Gln Met Ala			
	65 70 75			
	aca ttt gga aca aca gct ggt ttc tct gga ata ttc tca aac ttc ctg			291
40	Thr Phe Gly Thr Thr Ala Gly Phe Ser Gly Ile Phe Ser Asn Phe Leu			
	80 85 90			
	ttc aga cgc tgc ttc aag gtt aaa cat gat gct ttg aag aca tat gca			339
	Phe Arg Arg Cys Phe Lys Val Lys His Asp Ala Leu Lys Thr Tyr Ala			
	95 100 105			
45	tca ttg gct aca ctt cca ttt ttg tct act gtt gtt act gac aag ctt			387
	Ser Leu Ala Thr Leu Pro Phe Leu Ser Thr Val Val Thr Asp Lys Leu			
	110 115 120			
	ttt gta att gat gct ttg tat tca gat aat ata agc aag gaa aac tgt			435
	Phe Val Ile Asp Ala Leu Tyr Ser Asp Asn Ile Ser Lys Glu Asn Cys			
50	125 130 135 140			
	gtt ttc aga agc tca ctg att ggc ata gtt tgt ggt gtt ttc tat ccc			483
	Val Phe Arg Ser Ser Leu Ile Gly Ile Val Cys Gly Val Phe Tyr Pro			
	145 150 155			
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55	Ser Ser Leu Ala Phe Thr Lys Asn Gly Arg Leu Ala Thr Lys Tyr His			
	160 165 170			
	acc gtt cca ctg cca cca aaa gga agg gtt tta atc cat tgg atg acg			579
	Thr Val Pro Leu Pro Pro Lys Gly Arg Val Leu Ile His Trp Met Thr			
	175 180 185			
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	Leu Cys Gln Thr Gln Met Lys Leu Met Ala Ile Pro Leu Val Phe Gln			
	190 195 200			
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Glu Thr Leu Glu Lys Thr Ile His Glu Glu
5          225          230
tgctaactta gcaaaatgaa gtttctataa agaggactca ggcattgctg aaagagttaa      785
aagtaactgt gaacaaataa tttgttctgt gccttttgcc tggatatatag caaataactca      845
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                               Met Glu Arg Pro
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25 gat aag gcg gcg ctg aac gca ctg cag cct cct gag ttc aga aat gaa      162
Asp Lys Ala Ala Leu Asn Ala Leu Gln Pro Pro Glu Phe Arg Asn Glu
5          10          15          20
agc tca tta gca tct aca ctg aag acg ctc ctg ttc ttc aca gct tta      210
Ser Ser Leu Ala Ser Thr Leu Lys Thr Leu Leu Phe Phe Thr Ala Leu
30          25          30          35
atg atc act gtt cct att ggg tta tat ttc aca act aaa tct tac ata      258
Met Ile Thr Val Pro Ile Gly Leu Tyr Phe Thr Thr Lys Ser Tyr Ile
          40          45          50
ttt gaa ggc gcc ctt ggg atg tcc aat agg gac agc tat ttt tac gct      306
Phe Glu Gly Ala Leu Gly Met Ser Asn Arg Asp Ser Tyr Phe Tyr Ala
35          55          60          65
gct att gtt gca gtg gtc gcc gtc cat gtg gtg ctg gcc ctc ttt gtg      354
Ala Ile Val Ala Val Val Ala Val His Val Val Leu Ala Leu Phe Val
          70          75          80

40 tat gtg gcc tgg aat gaa ggc tca cga cag tgb cgt gaa ggc aaa cag      402
Tyr Val Ala Trp Asn Glu Gly Ser Arg Gln Xaa Arg Glu Gly Lys Gln
          85          90          95          100
gat taaagtgaac atcacctttt tatagcatta aattcatttt ttaaaatgat      455
Asp

45 aatgctggag ggggccatct gatttgaata aagttgaaag aacatgtaaa aaaaaaaaaa      515
aaaa                                          519

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Met Asp Ser Leu Arg Lys Met Leu Ile Ser Val Ala Met
          1          5          10
ctg ggc gca ggg gct ggc gtg ggc tac gcg ctc ctc gtt atc gtg acc      158
Leu Gly Ala Gly Ala Gly Val Gly Tyr Ala Leu Leu Val Ile Val Thr

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	Pro Gly Glu Arg Arg Lys Gln Glu Met Leu Lys Glu Met Pro Leu Gln			
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5	gac cca agg agc aga gag gag gcg gcc agg acc cag cag cta ttg ctg			254
	Asp Pro Arg Ser Arg Glu Glu Ala Ala Arg Thr Gln Gln Leu Leu Leu			
	50	55	60	
	gcc act ctg cag gag gca gcg acc acg cag gag aac gtg gcc tgg agg			302
	Ala Thr Leu Gln Glu Ala Ala Thr Thr Gln Glu Asn Val Ala Trp Arg			
10	65	70	75	
	aag aac tgg atg gtt ggc ggc gaa ggc ggc gcc ggc ggg agg tca ccg			350
	Lys Asn Trp Met Val Gly Gly Glu Gly Gly Ala Gly Gly Arg Ser Pro			
	80	85	90	
15	tgagaccgga cttgcctccg tgggcccggg accttggctt gggcgccagga atccgaggca			410
	gcctttcttc ttcgtgggcc cagcggagag tccggaccga gataccatgc caggactctc			470
	cggggtcctg tgagctgccg tcgggtgagc acgtttcccc caaaccttgg actgactgct			530
	ttaagggtccg caaggcgggc cagggccgag acgcgagtcg gatgtggtga actgaaagaa			590
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	Ile Val Leu Ala Asp Leu Asn Phe Pro Ala Ser Ser Ile Cys Gln Cys			
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	ggg ccc atg gag atc cgt gca gac ggc ctg ggc atc ccg cag ctc ctg			151
	Gly Pro Met Glu Ile Arg Ala Asp Gly Leu Gly Ile Pro Gln Leu Leu			
	25	30	35	
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	Glu Ala Val Leu Lys Leu Leu Pro Leu Asp Thr Tyr Val Glu Ser Pro			
	40	45	50	
	gct gca gtc atg gag ctg gtg ccc agc gac aag gag agg ggc ctg cag			247
	Ala Ala Val Met Glu Leu Val Pro Ser Asp Lys Glu Arg Gly Leu Gln			
	55	60	65	70
45	acc cca gtg tgg acg gag tac gag tcc atc cta cgc agg gcc ggc tgt			295
	Thr Pro Val Trp Thr Glu Tyr Glu Ser Ile Leu Arg Arg Ala Gly Cys			
	75	80	85	
	gtg aga gcc ctg gca aag ata gag agg ttt gag ttt tat gaa cgg gct			343
	Val Arg Ala Leu Ala Lys Ile Glu Arg Phe Glu Phe Tyr Glu Arg Ala			
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	aag aag gct ttt gct gtt gtg gca acg ggg gag acg gcc ctc tac gga			391
	Lys Lys Ala Phe Ala Val Val Ala Thr Gly Glu Thr Ala Leu Tyr Gly			
	105	110	115	
	aac ctc atc ctc agg aag ggg gtg ctt gcc ctc aac ccc ctg ctg			436
55	Asn Leu Ile Leu Arg Lys Gly Val Leu Ala Leu Asn Pro Leu Leu			
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	taggcctggt gaagaccacc tgggcccggaa gaggaactgg gggcaccctg agctccagta			496
	ccaccactca caacaggcct cccagtggca gctcccagac ctgggcccctg gccagggctc			556
	tagggggccgg cagtcttggg gtgggcccctg ccaattggga cgagtatccc tgatttgtga			616
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5 <221> CDS

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    Ile Val Leu Ala Asp Leu Asn Phe Pro Ala Ser Ser Ile Cys Gln Cys
                                   10       15       20
15 ggg ccc atg gag atc cgt gca gac ggc ctg ggc atc ccg cag ctc ctg      151
    Gly Pro Met Glu Ile Arg Ala Asp Gly Leu Gly Ile Pro Gln Leu Leu
                                   25       30       35
    gag gcc gtg cta gct gct gcc cct gga cac cta tgt gga gag tcc ggc      199
    Glu Ala Val Leu Ala Ala Ala Pro Gly His Leu Cys Gly Glu Ser Gly
    20   40       45       50
    tgc agt cat gga gct ggt gcc cag cga caa gga gag ggg cct gca gac      247
    Cys Ser His Gly Ala Gly Ala Gln Arg Gln Gly Glu Gly Pro Ala Asp
    55       60       65       70
    ccc agt gtg gac gga gta cga gtc cat cct acg cag ggc cgg ctg tgt      295
    25 Pro Ser Val Asp Gly Val Arg Val His Pro Thr Gln Gly Arg Leu Cys
                                   75       80       85
    gag agc cct ggc aaa gat aga gag gtt tgagttttat gaacgggcta      342
    Glu Ser Pro Gly Lys Asp Arg Glu Val
                                   90       95
30 agaaggcttt tgctgttgtg gcaacggggg agacggccct ctacggaaac ctcatcctca      402
    ggaaggggggt gcttgccctc aacccctgc tgtaggcctg gtgaagacca cctgggccgg      462
    aagaggaact gggggcacc cagctccag taccaccact cacaacaggc ctcccagtg      522
    cagctccag acctgggccc tggccagggc tctaggggcc ggcagtcttg ggggtgggccc      582
    tgccaattgg gacgagtatc cctgatttgt gaaaatgatg gaaaaacgtt caaaaaaaaa      642
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45

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    ctatagaaca acagatgtag tctccttatt aagtctgaag accaaaacttc ttagtgcaaa      180
50 gcagtcaagt cttttctcaa c atg acc cca atc aag ctt ttg aac tta aca      231
                                   Met Thr Pro Ile Lys Leu Leu Asn Leu Thr
                                   1       5       10
    tca aga tat aac ttc aga aga acg ttt gga ata gag ctc agt tca aac      279
    Ser Arg Tyr Asn Phe Arg Arg Thr Phe Gly Ile Glu Leu Ser Ser Asn
    55   15       20       25
    tct tcc tat tgc aaa cga gga aat ggc tac aga agc aga gtg ccc aaa      327
    Ser Ser Tyr Cys Lys Arg Gly Asn Gly Tyr Arg Ser Arg Val Pro Lys
    30       35       40
    gaa tgc gaa tgc aac tgg ctt cat ctt gaa agc gac act ctg aag aaa      375
60 Glu Cys Glu Cys Asn Trp Leu His Leu Glu Ser Asp Thr Leu Lys Lys
    45       50       55
    tta ccc ata att tct ccc tct tgg aca tgc aga att atc ctg ttc ttg      423
    Leu Pro Ile Ile Ser Pro Ser Trp Thr Cys Arg Ile Ile Leu Phe Leu

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 Tyr Phe Ser Gly Gln Leu Leu Gln Leu Ser Leu Ser Cys Leu Gln Leu
 75 80 85 90
 5 att aaa ctt taaggataaa aaaaaaaaaa aa 502
 Ile Lys Leu

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 20 tgagctctga ttcaagtgcc tgctctgcc ccttggtggg ctgaagcttc atg gag 176
 Met Glu
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 gta tcc acc aac ccc tcc tcc aac atc gat cca ggc aac tat gtt gaa 224
 Val Ser Thr Asn Pro Ser Ser Asn Ile Asp Pro Gly Asn Tyr Val Glu
 25 5 10 15
 atg aat gat tca atc acc cac cta ccc tct aaa gtg gtg ata caa gat 272
 Met Asn Asp Ser Ile Thr His Leu Pro Ser Lys Val Val Ile Gln Asp
 20 25 30
 30 att act atg gag cta cac tgc cct ctg tgc aat gat tgg ttc cga gac 320
 Ile Thr Met Glu Leu His Cys Pro Leu Cys Asn Asp Trp Phe Arg Asp
 35 40 45 50
 cca ctg atg cta agc tgt ggc cac aac ttc tgt gaa gcc tgt atc caa 368
 Pro Leu Met Leu Ser Cys Gly His Asn Phe Cys Glu Ala Cys Ile Gln
 55 60 65
 35 gac ttt tgg agg ctg caa gca aag gaa aca ttc tgt cct gag tgt aag 416
 Asp Phe Trp Arg Leu Gln Ala Lys Glu Thr Phe Cys Pro Glu Cys Lys
 70 75 80
 atg cta tgt cag tat aac aac tgt aca ttc aac cct gta ctg gac aag 464
 Met Leu Cys Gln Tyr Asn Asn Cys Thr Phe Asn Pro Val Leu Asp Lys
 40 85 90 95
 ttg gta gag aag att aag aag tta ccc tta ctc aag ggc cat cca cag 512
 Leu Val Glu Lys Ile Lys Lys Leu Pro Leu Leu Lys Gly His Pro Gln
 100 105 110
 45 tgc cca gag cat gga gag aac ctg aaa ctg ttc agt aaa cca gat ggg 560
 Cys Pro Glu His Gly Glu Asn Leu Lys Leu Phe Ser Lys Pro Asp Gly
 115 120 125 130
 aaa ctg atc tgc ttt caa tgc aag gat gct cgg ttg tct gtg ggg cag 608
 Lys Leu Ile Cys Phe Gln Cys Lys Asp Ala Arg Leu Ser Val Gly Gln
 135 140 145
 50 tct aag gag ttc ctg caa atc tct gat gct gtc cat ttc ttc atg gag 656
 Ser Lys Glu Phe Leu Gln Ile Ser Asp Ala Val His Phe Phe Met Glu
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 gag ctt gcc atc caa cag ggt caa ctg gag aca act ctg aag gag ctt 704
 Glu Leu Ala Ile Gln Gln Gly Gln Leu Glu Thr Thr Leu Lys Glu Leu
 55 165 170 175
 cag acc ctg agg aac atg cag aag gaa gct att gct gct cac aag gaa 752
 Gln Thr Leu Arg Asn Met Gln Lys Glu Ala Ile Ala Ala His Lys Glu
 180 185 190
 60 aac aag cta cat ctg cag caa cat gtg tcc atg gag ttt cta aag ctg 800
 Asn Lys Leu His Leu Gln Gln His Val Ser Met Glu Phe Leu Lys Leu
 195 200 205 210
 cat cag ttc ctg cac agc aaa gaa aag gac att tta act gag ctc cgg 848
 His Gln Phe Leu His Ser Lys Glu Lys Asp Ile Leu Thr Glu Leu Arg

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					Glu	Glu	Gly	Lys	Ala	Leu	Asn	Glu	Glu	Met	Glu	Leu	Asn	Leu	Ser	Gln	
								230						235				240			
5					ctt	cag	gag	caa	tgt	ctc	tta	gcc	aag	gat	atg	ttg	gtg	agc	att	cag	944
					Leu	Gln	Glu	Gln	Cys	Leu	Leu	Ala	Lys	Asp	Met	Leu	Val	Ser	Ile	Gln	
							245					250					255				
					gca	aag	acg	gaa	caa	cag	aac	tcc	ttc	gac	ttt	ctc	aaa	gac	atc	aca	992
					Ala	Lys	Thr	Glu	Gln	Gln	Asn	Ser	Phe	Asp	Phe	Leu	Lys	Asp	Ile	Thr	
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					Ser	Pro	Leu	Thr	Leu	Asp	Pro	Lys	Thr	Ala	His	Pro	Asn	Leu	Val	Leu	
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					Ser	Lys	Ser	Gln	Thr	Ser	Val	Trp	His	Gly	Asp	Ile	Lys	Lys	Ile	Met	
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30					Arg	Gly	Phe	Thr	Ser	Gly	Lys	Trp	Tyr	Trp	Glu	Val	Glu	Val	Ala	Lys	
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45					Gly	Gly	Gln	Leu	Ser	Phe	Tyr	Asn	Ala	Lys	Thr	Met	Thr	His	Ile	Tyr	
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   aaaataagga atgaaatggtt ttcctgatat gattttttgt tttcatctga taataatttt      180
   atatatcaca gaaacagc  atg gtt ctt act aaa cct ctt caa aga aat ggc      231
                        Met Val Leu Thr Lys Pro Leu Gln Arg Asn Gly
10  agc atg atg agc ttt gaa aat gtg aaa gaa aag agc aga gaa gga ggg      279
   Ser Met Met Ser Phe Glu Asn Val Lys Glu Lys Ser Arg Glu Gly Gly
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   60                        65                        70                        75
   cgt act gtt cct acc ctt gga aac ggc gca tgg gat acc tgc caa caa      471
   Arg Thr Val Pro Thr Leu Gly Asn Gly Ala Trp Asp Thr Cys Gln Gln
25  cac ata cgc act tca tca tgg aca gca aac aca ctc gtc att caa aac      519
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   Met Tyr Met Leu Leu Ser Pro His Arg Leu Arg Glu Gln Ala Gly Val
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   Arg Glu Ala Glu Ser Leu Pro Gln Ser Asn Thr Ala Asp Phe Lys Cys
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   Leu His Ser Ala Ser Leu Gln Gln Ala Pro Gly Gly Ile Leu Met Gly
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 105 110 115
 Trp Leu Thr Asp Pro Tyr Val Leu Thr Glu Val Asp Gly Lys Leu Tyr
 120 125 130
 Gly Arg Gly Ala Thr Asp Asn Lys Gly Pro Val Leu Ala Trp Ile Asn
 135 140 145
 55 Ala Val Ser Ala Phe Arg Ala Leu Glu Gln Asp Leu Pro Val Asn Ile
 150 155 160 165
 Lys Phe Ile Ile Glu Gly Met Glu Glu Ala Gly Ser Val Ala Leu Glu
 170 175 180
 Glu Leu Val Glu Lys Glu Lys Asp Arg Phe Phe Ser Gly Val Asp Tyr
 185 190 195
 60 Ile Val Ile Ser Asp Asn Leu Trp Ile Ser Gln Arg Lys Pro Ala Ile
 200 205 210
 Thr Tyr Gly Thr Arg Gly Asn Ser Tyr Phe Met Val Glu Val Lys Cys

	215		220		225											
	Arg	Asp	Gln	Asp	Phe	His	Ser	Gly	Thr	Phe	Gly	Gly	Ile	Leu	His	Glu
	230					235					240					245
	Pro	Met	Ala	Asp	Leu	Val	Ala	Leu	Leu	Gly	Ser	Leu	Val	Asp	Ser	Ser
5					250					255					260	
	Gly	His	Ile	Leu	Val	Pro	Gly	Ile	Tyr	Asp	Glu	Val	Val	Pro	Leu	Thr
				265					270						275	
	Glu	Glu	Glu	Ile	Asn	Thr	Tyr	Lys	Ala	Ile	His	Leu	Asp	Leu	Glu	Glu
				280				285					290			
10	Tyr	Arg	Asn	Ser	Ser	Arg	Val	Glu	Lys	Phe	Leu	Phe	Asp	Thr	Lys	Glu
		295					300					305				
	Glu	Ile	Leu	Met	His	Leu	Trp	Arg	Tyr	Pro	Ser	Leu	Ser	Ile	His	Gly
	310					315					320					325
	Ile	Glu	Gly	Ala	Phe	Asp	Glu	Pro	Gly	Thr	Lys	Thr	Val	Ile	Pro	Gly
15					330					335					340	
	Arg	Val	Ile	Gly	Lys	Phe	Ser	Ile	Arg	Leu	Val	Pro	His	Met	Asn	Val
				345					350					355		
	Ser	Ala	Val	Glu	Lys	Gln	Val	Thr	Arg	His	Leu	Glu	Asp	Val	Phe	Ser
		360						365					370			
20	Lys	Arg	Asn	Ser	Ser	Asn	Lys	Met	Val	Val	Ser	Met	Thr	Leu	Gly	Leu
		375					380					385				
	His	Pro	Trp	Ile	Ala	Asn	Ile	Asp	Asp	Thr	Gln	Tyr	Leu	Ala	Ala	Lys
	390					395					400					405
	Arg	Ala	Ile	Arg	Thr	Val	Phe	Gly	Thr	Glu	Pro	Asp	Met	Ile	Arg	Asp
25					410					415					420	
	Gly	Ser	Thr	Ile	Pro	Ile	Ala	Lys	Met	Phe	Gln	Glu	Ile	Val	His	Lys
				425					430					435		
	Ser	Val	Val	Leu	Ile	Pro	Leu	Gly	Ala	Val	Asp	Asp	Gly	Glu	His	Ser
		440						445				450				
30	Gln	Asn	Glu	Lys	Ile	Asn	Arg	Trp	Asn	Tyr	Ile	Glu	Gly	Thr	Lys	Leu
		455				460						465				
	Phe	Ala	Ala	Phe	Phe	Leu	Glu	Met	Ala	Gln	Leu	His				
	470					475					480					

35 <210> 243
 <211> 331
 <212> PRT
 <213> Homo sapiens

40 <220>
 <221> SIGNAL
 <222> -31...-1

<400> 243

45	Met	Trp	Leu	Trp	Glu	Asp	Gln	Gly	Gly	Leu	Leu	Gly	Pro	Phe	Ser	Phe
	-30						-25					-20				
	Leu	Leu	Leu	Val	Leu	Leu	Leu	Val	Thr	Arg	Ser	Pro	Val	Asn	Ala	Cys
	-15					-10					-5					1
	Leu	Leu	Thr	Gly	Ser	Leu	Phe	Val	Leu	Leu	Arg	Val	Phe	Ser	Phe	Glu
50			5					10					15			
	Pro	Val	Pro	Ser	Cys	Arg	Ala	Leu	Gln	Val	Leu	Lys	Pro	Arg	Asp	Arg
		20					25					30				
	Ile	Ser	Ala	Ile	Ala	His	Arg	Gly	Gly	Ser	His	Asp	Ala	Pro	Glu	Asn
	35					40					45					
55	Thr	Leu	Ala	Ala	Ile	Arg	Gln	Ala	Ala	Lys	Asn	Gly	Ala	Thr	Gly	Val
	50					55					60					65
	Glu	Leu	Asp	Ile	Glu	Phe	Thr	Ser	Asp	Gly	Ile	Pro	Val	Leu	Met	His
				70					75					80		
	Asp	Asn	Thr	Val	Asp	Arg	Thr	Thr	Asp	Gly	Thr	Gly	Arg	Leu	Cys	Asp
60			85				90						95			
	Leu	Thr	Phe	Glu	Gln	Ile	Arg	Lys	Leu	Asn	Pro	Ala	Ala	Asn	His	Arg
		100					105				110					
	Leu	Arg	Asn	Asp	Phe	Pro	Asp	Glu	Lys	Ile	Pro	Thr	Leu	Met	Glu	Ala

	115		120		125												
	Val	Ala	Glu	Cys	Leu	Asn	His	Asn	Leu	Thr	Ile	Phe	Phe	Asp	Val	Lys	
	130					135					140					145	
	Gly	His	Ala	His	Lys	Ala	Thr	Glu	Ala	Leu	Lys	Lys	Met	Tyr	Met	Glu	
5					150					155					160		
	Phe	Pro	Gln	Leu	Tyr	Asn	Asn	Ser	Val	Val	Cys	Ser	Phe	Leu	Pro	Glu	
				165					170					175			
	Val	Ile	Tyr	Lys	Met	Arg	Gln	Thr	Asp	Arg	Asp	Val	Ile	Thr	Ala	Leu	
			180					185				190					
10	Thr	His	Arg	Pro	Trp	Ser	Leu	Ser	His	Thr	Gly	Asp	Gly	Lys	Pro	Arg	
		195					200					205					
	Tyr	Asp	Thr	Phe	Trp	Lys	His	Phe	Ile	Phe	Val	Met	Met	Asp	Ile	Leu	
	210					215					220				225		
	Leu	Asp	Trp	Ser	Met	His	Asn	Ile	Leu	Trp	Tyr	Leu	Cys	Gly	Ile	Ser	
15					230					235				240			
	Ala	Phe	Leu	Met	Gln	Lys	Asp	Phe	Val	Ser	Pro	Ala	Tyr	Leu	Lys	Lys	
				245					250					255			
	Trp	Ser	Ala	Lys	Gly	Ile	Gln	Val	Val	Gly	Trp	Thr	Val	Asn	Thr	Phe	
		260					265					270					
20	Asp	Glu	Lys	Ser	Tyr	Tyr	Glu	Ser	His	Leu	Gly	Ser	Ser	Tyr	Ile	Thr	
		275					280					285					
	Asp	Ser	Met	Val	Glu	Asp	Cys	Glu	Pro	His	Phe						
	290					295					300						

25 <210> 244
 <211> 274
 <212> PRT
 <213> Homo sapiens

30 <220>
 <221> SIGNAL
 <222> -17...-1

<400> 244

35	Met	Asp	Arg	Pro	Gly	Phe	Val	Ala	Ala	Leu	Val	Ala	Gly	Gly	Val	Ala	
		-15						-10				-5					
	Gly	Val	Ser	Val	Asp	Leu	Ile	Leu	Phe	Pro	Leu	Asp	Thr	Ile	Lys	Thr	
	1				5					10					15		
	Arg	Leu	Gln	Ser	Pro	Gln	Gly	Phe	Ser	Lys	Ala	Gly	Gly	Phe	His	Gly	
40				20						25				30			
	Ile	Tyr	Ala	Gly	Val	Pro	Ser	Ala	Ala	Ile	Gly	Ser	Phe	Pro	Asn	Ala	
			35					40					45				
	Ala	Ala	Phe	Phe	Ile	Thr	Tyr	Glu	Tyr	Val	Lys	Trp	Phe	Leu	His	Ala	
		50					55				60						
45	Asp	Ser	Ser	Ser	Tyr	Leu	Thr	Pro	Met	Lys	His	Met	Leu	Ala	Ala	Ser	
		65				70				75							
	Ala	Gly	Glu	Val	Val	Ala	Cys	Leu	Ile	Arg	Val	Pro	Ser	Glu	Val	Val	
	80					85				90					95		
	Lys	Gln	Arg	Ala	Gln	Val	Ser	Ala	Ser	Thr	Arg	Thr	Phe	Gln	Ile	Phe	
50				100						105				110			
	Ser	Asn	Ile	Leu	Tyr	Glu	Glu	Gly	Ile	Gln	Gly	Leu	Tyr	Arg	Gly	Tyr	
			115					120					125				
	Lys	Ser	Thr	Val	Leu	Arg	Glu	Ile	Pro	Phe	Ser	Leu	Val	Gln	Phe	Pro	
		130					135					140					
55	Leu	Trp	Glu	Ser	Leu	Lys	Ala	Leu	Trp	Ser	Trp	Arg	Gln	Asp	His	Val	
		145				150					155						
	Val	Asp	Ser	Trp	Gln	Ser	Ala	Val	Cys	Gly	Ala	Phe	Ala	Gly	Gly	Phe	
	160					165				170					175		
	Ala	Ala	Ala	Val	Thr	Thr	Pro	Leu	Asp	Val	Ala	Lys	Thr	Arg	Ile	Met	
60				180						185				190			
	Leu	Ala	Lys	Ala	Gly	Ser	Ser	Thr	Ala	Asp	Gly	Asn	Val	Leu	Ser	Val	
			195					200				205					
	Leu	His	Gly	Val	Trp	Arg	Ser	Gln	Gly	Leu	Ala	Gly	Leu	Phe	Ala	Gly	

210 215 220
 Val Phe Pro Arg Met Ala Ala Ile Ser Leu Gly Gly Phe Ile Phe Leu
 225 230 235
 Gly Ala Tyr Asp Arg Thr His Ser Leu Leu Leu Glu Val Gly Arg Lys
 5 240 245 250 255
 Ser Pro

 <210> 245
 <211> 406
 10 <212> PRT
 <213> Homo sapiens

 <220>
 <221> SIGNAL
 15 <222> -35...-1

 <400> 245
 Met Arg Gly Ser Val Glu Cys Thr Trp Gly Trp Gly His Cys Ala Pro
 -35 -30 -25 -20
 20 Ser Pro Leu Leu Leu Trp Thr Leu Leu Leu Phe Ala Ala Pro Phe Gly
 -15 -10 -5
 Leu Leu Gly Glu Lys Thr Arg Gln Val Ser Leu Glu Val Ile Pro Asn
 1 5 10
 Trp Leu Gly Pro Leu Gln Asn Leu Leu His Ile Arg Ala Val Gly Thr
 25 15 20 25
 Asn Ser Thr Leu His Tyr Val Trp Ser Ser Leu Gly Pro Leu Ala Val
 30 35 40 45
 Val Met Val Ala Thr Asn Thr Pro His Ser Thr Leu Ser Val Asn Trp
 50 55 60
 30 Ser Leu Leu Leu Ser Pro Glu Pro Asp Gly Gly Leu Met Val Leu Pro
 65 70 75
 Lys Asp Ser Ile Gln Phe Ser Ser Ala Leu Val Phe Thr Arg Leu Leu
 80 85 90
 Glu Phe Asp Ser Thr Asn Val Ser Asp Thr Ala Ala Lys Pro Leu Gly
 35 95 100 105
 Arg Pro Tyr Pro Pro Tyr Ser Leu Ala Asp Phe Ser Trp Asn Asn Ile
 110 115 120 125
 Thr Asp Ser Leu Asp Pro Ala Thr Leu Ser Ala Thr Phe Gln Gly His
 130 135 140
 40 Pro Met Asn Asp Pro Thr Arg Thr Phe Ala Asn Gly Ser Leu Ala Phe
 145 150 155
 Arg Val Gln Ala Phe Ser Arg Ser Ser Arg Pro Ala Gln Pro Pro Arg
 160 165 170
 Leu Leu His Thr Ala Asp Thr Cys Gln Leu Glu Val Ala Leu Ile Gly
 45 175 180 185
 Ala Ser Pro Arg Gly Asn Arg Ser Leu Phe Gly Leu Glu Val Ala Thr
 190 195 200 205
 Leu Gly Gln Gly Pro Asp Cys Pro Ser Met Gln Glu Gln His Ser Ile
 210 215 220
 50 Asp Asp Glu Tyr Ala Pro Ala Val Phe Gln Leu Asp Gln Leu Leu Trp
 225 230 235
 Gly Ser Leu Pro Ser Gly Phe Ala Gln Trp Arg Pro Val Ala Tyr Ser
 240 245 250
 Gln Lys Pro Gly Gly Arg Glu Ser Ala Leu Pro Cys Gln Ala Ser Pro
 55 255 260 265
 Leu His Pro Ala Leu Ala Tyr Ser Leu Pro Gln Ser Pro Ile Val Arg
 270 275 280 285
 Ala Phe Phe Gly Ser Gln Asn Asn Phe Cys Ala Phe Asn Leu Thr Phe
 290 295 300
 60 Gly Ala Ser Thr Gly Pro Gly Tyr Trp Asp Gln His Tyr Leu Ser Trp
 305 310 315
 Ser Met Leu Leu Gly Val Gly Phe Pro Pro Val Asp Gly Leu Ser Pro
 320 325 330

Leu Val Leu Gly Ile Met Ala Val Ala Leu Gly Ala Pro Gly Leu Met
 335 340 345
 Leu Leu Gly Gly Gly Leu Val Leu Leu Leu His His Lys Lys Tyr Ser
 350 355 360 365
 5 Glu Tyr Gln Ser Ile Asn
 370

 <210> 246
 <211> 24
 10 <212> PRT
 <213> Homo sapiens

 <220>
 <221> SIGNAL
 15 <222> -16...-1

 <400> 246
 Met Ala Pro Leu Gly Met Leu Leu Gly Leu Leu Met Ala Ala Cys Thr
 -15 -10 -5
 20 Pro Ser Ala Ser Val Ile Arg Thr
 1 5

 <210> 247
 <211> 348
 25 <212> PRT
 <213> Homo sapiens

 <220>
 <221> SIGNAL
 30 <222> -29...-1

 <400> 247
 Met Ala Pro Gln Ser Leu Pro Ser Ser Arg Met Ala Pro Leu Gly Met
 -25 -20 -15
 35 Leu Leu Gly Pro Leu Met Ala Ala Cys Phe Thr Phe Cys Leu Ser His
 -10 -5 1
 Gln Asn Leu Lys Glu Phe Ala Leu Thr Asn Pro Glu Lys Ser Ser Thr
 5 10 15
 Lys Glu Thr Glu Arg Lys Glu Thr Lys Ala Glu Glu Leu Asp Ala
 40 20 25 30 35
 Glu Val Leu Glu Val Phe His Pro Thr His Glu Trp Gln Ala Leu Gln
 40 45 50
 Pro Gly Gln Ala Val Pro Ala Gly Ser His Val Arg Leu Asn Leu Gln
 55 60 65
 45 Thr Gly Glu Arg Glu Ala Lys Leu Gln Tyr Glu Asp Lys Phe Arg Asn
 70 75 80
 Asn Leu Lys Gly Lys Arg Leu Asp Ile Asn Thr Asn Thr Tyr Thr Ser
 85 90 95
 Gln Asp Leu Lys Ser Ala Leu Ala Lys Phe Lys Glu Gly Ala Glu Met
 50 100 105 110 115
 Glu Ser Ser Lys Glu Asp Lys Ala Arg Gln Ala Glu Val Lys Arg Leu
 120 125 130
 Phe Arg Pro Ile Glu Glu Leu Lys Lys Asp Phe Asp Glu Leu Asn Val
 135 140 145
 55 Val Ile Glu Thr Asp Met Gln Ile Met Val Arg Leu Ile Asn Lys Phe
 150 155 160
 Asn Ser Ser Ser Ser Ser Leu Glu Glu Lys Ile Ala Ala Leu Phe Asp
 165 170 175
 Leu Glu Tyr Tyr Val His Gln Met Asp Asn Ala Gln Asp Leu Leu Ser
 60 180 185 190 195
 Phe Gly Gly Leu Gln Val Val Ile Asn Gly Leu Asn Ser Thr Glu Pro
 200 205 210
 Leu Val Lys Glu Tyr Ala Ala Phe Val Leu Gly Ala Ala Phe Ser Ser

				215						220				225			
	Asn	Pro	Lys	Val	Gln	Val	Glu	Ala	Ile	Glu	Gly	Gly	Ala	Leu	Gln	Lys	
			230					235					240				
	Leu	Leu	Val	Ile	Leu	Ala	Thr	Glu	Gln	Pro	Leu	Thr	Ala	Lys	Lys	Lys	
5		245					250					255					
	Val	Leu	Phe	Ala	Leu	Cys	Ser	Leu	Leu	Arg	His	Phe	Pro	Tyr	Ala	Gln	
	260					265					270					275	
	Arg	Gln	Phe	Leu	Lys	Leu	Gly	Gly	Leu	Gln	Val	Leu	Arg	Thr	Leu	Val	
					280					285						290	
10	Gln	Glu	Lys	Gly	Thr	Glu	Val	Leu	Ala	Val	Arg	Val	Val	Thr	Leu	Leu	
			295						300							305	
	Tyr	Asp	Leu	Val	Thr	Glu	Lys	Met	Phe	Ala	Glu	Glu					
			310					315									
15	<210>	248															
	<211>	397															
	<212>	PRT															
	<213>	Homo sapiens															
20	<220>																
	<221>	SIGNAL															
	<222>	-36...-1															
	<400>	248															
25	Met	Glu	Glu	Leu	Gln	Glu	Pro	Leu	Arg	Gly	Gln	Leu	Arg	Leu	Cys	Phe	
		-35					-30					-25					
	Thr	Gln	Ala	Ala	Arg	Thr	Ser	Leu	Leu	Leu	Leu	Arg	Leu	Asn	Asp	Ala	
	-20					-15					-10				-5		
	Ala	Leu	Arg	Ala	Leu	Gln	Glu	Cys	Gln	Arg	Gln	Gln	Val	Arg	Pro	Val	
30					1			5					10				
	Ile	Ala	Phe	Gln	Gly	His	Arg	Gly	Tyr	Leu	Arg	Leu	Pro	Gly	Pro	Gly	
		15						20					25				
	Trp	Ser	Cys	Leu	Phe	Ser	Phe	Ile	Val	Ser	Gln	Cys	Cys	Gln	Glu	Gly	
	30						35					40					
35	Ala	Gly	Gly	Ser	Leu	Asp	Leu	Val	Cys	Gln	Arg	Phe	Leu	Arg	Ser	Gly	
	45					50					55				60		
	Pro	Asn	Ser	Leu	His	Cys	Leu	Gly	Ser	Leu	Arg	Glu	Arg	Leu	Ile	Ile	
					65					70					75		
	Trp	Ala	Ala	Met	Asp	Ser	Ile	Pro	Ala	Pro	Ser	Ser	Val	Gln	Gly	His	
40				80					85					90			
	Asn	Leu	Thr	Glu	Asp	Ala	Arg	His	Pro	Glu	Ser	Trp	Gln	Asn	Thr	Gly	
		95						100					105				
	Gly	Tyr	Ser	Glu	Gly	Asp	Ala	Val	Ser	Gln	Pro	Gln	Met	Ala	Leu	Glu	
	110						115					120					
45	Glu	Val	Ser	Val	Ser	Asp	Pro	Leu	Ala	Ser	Asn	Gln	Gly	Gln	Ser	Leu	
	125					130					135				140		
	Pro	Gly	Ser	Ser	Arg	Glu	His	Met	Ala	Gln	Trp	Glu	Val	Arg	Ser	Gln	
					145					150					155		
	Thr	His	Val	Pro	Asn	Arg	Glu	Pro	Val	Gln	Ala	Leu	Pro	Ser	Ser	Ala	
50				160					165					170			
	Ser	Arg	Lys	Arg	Leu	Asp	Lys	Lys	Arg	Ser	Val	Pro	Val	Ala	Thr	Val	
		175						180					185				
	Glu	Leu	Glu	Glu	Lys	Arg	Phe	Arg	Thr	Leu	Pro	Leu	Val	Pro	Ser	Pro	
	190						195					200					
55	Leu	Gln	Gly	Leu	Thr	Asn	Gln	Asp	Leu	Gln	Glu	Gly	Glu	Asp	Trp	Glu	
	205					210					215					220	
	Gln	Glu	Asp	Glu	Asp	Met	Asp	Pro	Arg	Leu	Glu	His	Ser	Ser	Ser	Val	
					225					230					235		
	Gln	Glu	Asp	Ser	Glu	Ser	Pro	Ser	Pro	Glu	Asp	Ile	Pro	Asp	Tyr	Leu	
60				240					245					250			
	Leu	Gln	Tyr	Arg	Ala	Ile	His	Ser	Ala	Glu	Gln	Gln	His	Ala	Tyr	Glu	
		255						260					265				
	Gln	Asp	Phe	Glu	Thr	Asp	Tyr	Ala	Glu	Tyr	Arg	Ile	Leu	His	Ala	Arg	

270 275 280
 Val Gly Thr Ala Ser Gln Arg Phe Ile Glu Leu Gly Ala Glu Ile Lys
 285 290 295 300
 Arg Val Arg Arg Gly Thr Pro Glu Tyr Lys Val Leu Glu Asp Lys Ile
 5 305 310 315
 Ile Gln Glu Tyr Lys Lys Phe Arg Lys Gln Tyr Pro Ser Tyr Arg Glu
 320 325 330
 Glu Lys Arg Arg Cys Glu Tyr Leu His Gln Lys Leu Ser His Ile Lys
 335 340 345
 10 Gly Leu Ile Leu Glu Phe Glu Glu Lys Asn Arg Gly Ser
 350 355 360

 <210> 249
 <211> 403
 15 <212> PRT
 <213> Homo sapiens

 <220>
 <221> SIGNAL
 20 <222> -21...-1

 <400> 249
 Met Val Asn Asp Pro Pro Val Pro Ala Leu Leu Trp Ala Gln Glu Val
 -20 -15 -10
 25 Gly Gln Val Leu Ala Gly Arg Ala Arg Arg Leu Leu Leu Gln Phe Gly
 -5 1 5 10
 Val Leu Phe Cys Thr Ile Leu Leu Leu Leu Trp Val Ser Val Phe Leu
 15 20 25
 Tyr Gly Ser Phe Tyr Tyr Ser Tyr Met Pro Thr Val Ser His Leu Ser
 30 30 35 40
 Pro Val His Phe Tyr Tyr Arg Thr Asp Cys Asp Ser Ser Thr Thr Ser
 45 50 55
 Leu Cys Ser Phe Pro Val Ala Asn Val Ser Leu Thr Lys Gly Gly Arg
 60 65 70 75
 35 Asp Arg Val Leu Met Tyr Gly Gln Pro Tyr Arg Val Thr Leu Glu Leu
 80 85 90
 Glu Leu Pro Glu Ser Pro Val Asn Gln Asp Leu Gly Met Phe Leu Val
 95 100 105
 Thr Ile Ser Cys Tyr Thr Arg Gly Arg Ile Ile Ser Thr Ser Ser
 40 110 115 120
 Arg Ser Val Met Leu His Tyr Arg Ser Asp Leu Leu Gln Met Leu Asp
 125 130 135
 Thr Leu Val Phe Ser Ser Leu Leu Leu Phe Gly Phe Ala Glu Gln Lys
 140 145 150 155
 45 Gln Leu Leu Glu Val Glu Leu Tyr Ala Asp Tyr Arg Glu Asn Ser Val
 160 165 170
 Ser Glu Tyr Val Pro Thr Thr Gly Ala Ile Ile Glu Ile His Ser Lys
 175 180 185
 Arg Ile Gln Leu Tyr Gly Ala Tyr Leu Arg Ile His Ala His Phe Thr
 50 190 195 200
 Gly Leu Arg Tyr Leu Leu Tyr Asn Phe Pro Met Thr Cys Ala Phe Ile
 205 210 215
 Gly Val Ala Ser Asn Phe Thr Phe Leu Ser Val Ile Val Leu Phe Ser
 220 225 230 235
 55 Tyr Met Gln Trp Val Trp Gly Gly Ile Trp Pro Arg His Arg Phe Ser
 240 245 250
 Leu Gln Val Asn Ile Arg Lys Arg Asp Asn Ser Arg Lys Glu Val Gln
 255 260 265
 Arg Arg Ile Ser Ala His Gln Pro Gly Ala Gly Pro Glu Gly Gln Glu
 60 270 275 280
 Glu Ser Thr Pro Gln Ser Asp Val Thr Glu Asp Gly Glu Ser Pro Glu
 285 290 295
 Asp Pro Ser Gly Thr Glu Gly Gln Leu Ser Glu Glu Glu Lys Pro Asp

300 305 310 315
 Gln Gln Pro Leu Ser Gly Glu Glu Glu Leu Glu Pro Glu Ala Ser Asp
 320 325 330
 Gly Ser Gly Ser Trp Glu Asp Ala Ala Leu Leu Thr Glu Ala Asn Leu
 5 335 340 345
 Pro Ala Pro Ala Pro Ala Ser Ala Ser Ala Pro Val Leu Glu Thr Leu
 350 355 360
 Gly Ser Ser Glu Pro Ala Gly Gly Ala Leu Arg Gln Arg Pro Thr Cys
 365 370 375
 10 Ser Ser Ser
 380

<210> 250
 <211> 111
 15 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 20 <222> -26...-1

<400> 250
 Met Pro His Leu Met Glu Arg Met Val Gly Ser Gly Leu Leu Trp Leu
 -25 -20 -15
 25 Ala Leu Val Ser Cys Ile Leu Thr Gln Ala Ser Ala Val Gln Arg Gly
 -10 -5 1 5
 Tyr Gly Asn Pro Ile Glu Ala Ser Ser Tyr Gly Leu Asp Leu Asp Cys
 10 15 20
 Gly Ala Pro Gly Thr Pro Glu Ala His Val Cys Phe Asp Pro Cys Gln
 30 25 30 35
 Asn Tyr Thr Leu Leu Asp Leu Gly Pro Ile Thr Arg Arg Gly Ala Gln
 40 45 50
 Ser Pro Gly Val Met Asn Gly Thr Pro Ser Thr Ala Gly Phe Leu Val
 55 60 65 70
 35 Ala Trp Pro Met Val Leu Leu Thr Val Leu Leu Ala Trp Leu Phe
 75 80 85

<210> 251
 <211> 72
 40 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 45 <222> -17...-1

<400> 251
 Met Asp Arg Pro Gly Phe Val Ala Ala Leu Val Ala Gly Gly Val Ala
 -15 -10 -5
 50 Gly Val Ser Val Asp Leu Ile Leu Phe Pro Leu Asp Thr Ile Lys Thr
 1 5 10 15
 Arg Leu Gln Ser Pro Gln Gly Phe Asn Lys Ala Gly Gly Phe His Gly
 20 25 30
 Ile Tyr Ala Gly Val Pro Ser Ala Ala Ile Gly Ser Phe Pro Asn Gly
 55 35 40 45
 Cys Leu Pro Asp Ser Ser Ser Ile
 50 55

<210> 252
 60 <211> 138
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 <222> -15...-1

5 <400> 252
 Met Lys Phe Thr Thr Leu Leu Phe Leu Ala Ala Val Ala Gly Ala Leu
 -15 -10 -5 1
 Val Tyr Ala Glu Asp Ala Ser Ser Asp Ser Thr Gly Ala Asp Pro Ala
 5 10 15
 10 Gln Glu Ala Gly Thr Ser Lys Pro Asn Glu Glu Ile Ser Gly Pro Ala
 20 25 30
 Glu Pro Ala Ser Pro Pro Glu Thr Thr Thr Thr Ala Gln Glu Thr Ser
 35 40 45
 Ala Ala Ala Val Gln Gly Thr Ala Lys Val Thr Ser Ser Arg Gln Glu
 15 50 55 60 65
 Leu Asn Pro Leu Lys Ser Ile Val Glu Lys Ser Ile Leu Leu Thr Glu
 70 75 80
 Gln Ala Leu Ala Lys Ala Gly Lys Gly Met His Gly Gly Val Pro Gly
 85 90 95
 20 Gly Lys Gln Phe Ile Glu Asn Gly Ser Glu Phe Ala Gln Lys Leu Leu
 100 105 110
 Lys Lys Phe Ser Leu Leu Lys Pro Trp Ala
 115 120

25 <210> 253
 <211> 108
 <212> PRT
 <213> Homo sapiens

30 <220>
 <221> SIGNAL
 <222> -31...-1

<220>
 35 <221> UNSURE
 <222> 45
 <223> Xaa = Glu,Gln

<220>
 40 <221> UNSURE
 <222> 44
 <223> Xaa = Lys,Asn

<400> 253
 45 Met Trp Leu Trp Glu Asp Gln Gly Gly Leu Leu Gly Pro Phe Ser Phe
 -30 -25 -20
 Leu Leu Leu Val Leu Leu Val Thr Arg Ser Pro Val Asn Ala Cys
 -15 -10 -5 1
 Leu Leu Thr Gly Ser Leu Phe Val Leu Leu Arg Val Phe Ser Phe Glu
 5 10 15
 50 Pro Val Pro Ser Cys Arg Ala Leu Gln Val Leu Lys Pro Arg Asp Arg
 20 25 30
 Ile Ser Ala Ile Ala His Arg Gly Gly Ser Xaa Xaa Ala Pro Glu Asn
 35 40 45
 55 Thr Leu Ala Ala Ile Arg Gln Leu Arg Met Glu Gln Gln Ala Trp Ser
 50 55 60 65
 Trp Thr Leu Ser Leu Leu Thr Gly Phe Leu Ser
 70 75

60 <210> 254
 <211> 147
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 <222> -24...-1
 5
 <400> 254
 Met Val Met Gly Leu Gly Val Leu Leu Leu Val Phe Val Leu Gly Leu
 -20 -15 -10
 Gly Leu Thr Pro Pro Thr Leu Ala Gln Asp Asn Ser Arg Tyr Thr His
 10 -5 1 5
 Phe Leu Thr Gln His Tyr Asp Ala Lys Pro Gln Gly Arg Asp Asp Arg
 10 15 20
 Tyr Cys Glu Ser Ile Met Arg Arg Arg Gly Leu Thr Ser Pro Cys Lys
 25 30 35 40
 15 Asp Ile Asn Thr Phe Ile His Gly Asn Lys Arg Thr Ile Lys Ala Ile
 45 50 55
 Cys Glu Asn Lys Asn Gly Asn Pro His Arg Glu Asn Leu Arg Ile Ser
 60 65 70
 Lys Ser Ser Phe Gln Val Thr Thr Cys Lys Leu His Gly Gly Ser Pro
 20 75 80 85
 Trp Pro Pro Cys Gln Tyr Arg Ala Thr Ala Gly Phe Arg Asn Val Val
 90 95 100
 Val Ala Cys Glu Asn Gly Leu Pro Val His Leu Asp Gln Ser Ile Phe
 105 110 115 120
 25 Arg Arg Pro

 <210> 255
 <211> 381
 <212> PRT
 30 <213> Homo sapiens

 <220>
 <221> SIGNAL
 <222> -33...-1
 35
 <400> 255
 Met Ser Trp Thr Val Pro Val Val Arg Ala Ser Gln Arg Val Ser Ser
 -30 -25 -20
 Val Gly Ala Asn Phe Leu Cys Leu Gly Met Ala Leu Cys Pro Arg Gln
 40 -15 -10 -5
 Ala Thr Arg Ile Pro Leu Asn Gly Thr Trp Leu Phe Thr Pro Val Ser
 1 5 10 15
 Lys Met Ala Thr Val Lys Ser Glu Leu Ile Glu Arg Phe Thr Ser Glu
 20 25 30
 45 Lys Pro Val His His Ser Lys Val Ser Ile Ile Gly Thr Gly Ser Val
 35 40 45
 Gly Met Ala Cys Ala Ile Ser Ile Leu Leu Lys Gly Leu Ser Asp Glu
 50 55 60
 Leu Ala Leu Val Asp Leu Asp Glu Asp Lys Leu Lys Gly Glu Thr Met
 50 65 70 75
 Asp Leu Gln His Gly Ser Pro Phe Thr Lys Met Pro Asn Ile Val Cys
 80 85 90 95
 Ser Lys Asp Tyr Phe Val Thr Ala Asn Ser Asn Leu Val Ile Ile Thr
 100 105 110
 55 Ala Gly Ala Arg Gln Glu Lys Gly Glu Thr Arg Leu Asn Leu Val Gln
 115 120 125
 Arg Asn Val Ala Ile Phe Lys Leu Met Ile Ser Ser Ile Val Gln Tyr
 130 135 140
 Ser Pro His Cys Lys Leu Ile Ile Val Ser Asn Pro Val Asp Ile Leu
 60 145 150 155
 Thr Tyr Val Ala Trp Lys Leu Ser Ala Phe Pro Lys Asn Arg Ile Ile
 160 165 170 175
 Gly Ser Gly Cys Asn Leu Asp Thr Ala Arg Phe Arg Phe Leu Ile Gly

180 185 190
 Gln Lys Leu Gly Ile His Ser Glu Ser Cys His Gly Trp Ile Leu Gly
 195 200 205
 5 Glu His Gly Asp Ser Ser Val Pro Val Trp Ser Gly Val Asn Ile Ala
 210 215 220
 Gly Val Pro Leu Lys Asp Leu Asn Ser Asp Ile Gly Thr Asp Lys Asp
 225 230 235
 Pro Glu Gln Trp Lys Asn Val His Lys Glu Val Thr Ala Thr Ala Tyr
 240 245 250 255
 10 Glu Ile Ile Lys Met Lys Gly Tyr Thr Ser Trp Ala Ile Gly Leu Ser
 260 265 270
 Val Ala Asp Leu Thr Glu Ser Ile Leu Lys Asn Leu Arg Arg Ile His
 275 280 285
 Pro Val Ser Thr Ile Ile Lys Gly Leu Tyr Gly Ile Asp Glu Glu Val
 290 295 300
 15 Phe Leu Ser Ile Pro Cys Ile Leu Gly Glu Asn Gly Ile Thr Asn Leu
 305 310 315
 Ile Lys Ile Lys Leu Thr Pro Glu Glu Glu Ala His Leu Lys Lys Ser
 320 325 330 335
 20 Ala Lys Thr Leu Trp Glu Ile Gln Asn Lys Leu Lys Leu
 340 345

<210> 256
 <211> 139
 25 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 30 <222> -33...-1

<400> 256
 Met Ser Trp Thr Val Pro Val Val Arg Ala Ser Gln Arg Met Ser Ser
 -30 -25 -20
 35 Val Gly Ala Asn Phe Leu Cys Leu Gly Met Ala Leu Cys Leu Arg Gln
 -15 -10 -5
 Ala Thr Arg Ile Pro Leu Asn Gly Thr Trp Leu Phe Thr Pro Val Ser
 1 5 10 15
 Lys Met Ala Thr Val Lys Ser Glu Leu Ile Glu Arg Phe Thr Ser Glu
 40 20 25 30
 Lys Pro Val His His Ser Lys Val Ser Ile Ile Gly Thr Gly Ser Val
 35 40 45
 Gly Met Ala Cys Ala Ile Ser Ile Leu Leu Lys Gly Leu Ser Asp Glu
 50 55 60
 45 Leu Ala Leu Val Asp Leu Asp Glu Asp Lys Leu Lys Gly Glu Thr Met
 65 70 75
 Asp Leu Gln His Gly Ser Pro Phe Thr Lys Met Pro Ile Leu Phe Val
 80 85 90 95
 Ala Lys Ile Thr Leu Ser Gln Gln Thr Pro Thr
 50 100 105

<210> 257
 <211> 265
 <212> PRT
 55 <213> Homo sapiens

<220>
 <221> SIGNAL
 <222> -14...-1

60 <400> 257
 Met Asn Phe Ile Leu Phe Ile Phe Ile Pro Gly Val Phe Ser Leu Lys
 -10 -5 1

Ser Ser Thr Leu Lys Pro Thr Ile Glu Ala Leu Pro Asn Val Leu Pro
 5 5 10 15
 Leu Asn Glu Asp Val Asn Lys Gln Glu Glu Lys Asn Glu Asp His Thr
 20 25 30
 5 Pro Asn Tyr Ala Pro Ala Asn Glu Lys Asn Gly Asn Tyr Tyr Lys Asp
 35 40 45 50
 Ile Lys Gln Tyr Val Phe Thr Thr Gln Asn Pro Asn Gly Thr Glu Ser
 55 60 65
 10 Glu Ile Ser Val Arg Ala Thr Thr Asp Leu Asn Phe Ala Leu Lys Asn
 70 75 80
 Gly Ser Thr Pro Asn Val Pro Ala Phe Trp Thr Met Leu Ala Lys Ala
 85 90 95
 Ile Asn Gly Thr Ala Val Val Met Asp Asp Lys Asp Gln Leu Phe His
 100 105 110
 15 Pro Ile Pro Glu Ser Asp Val Asn Ala Thr Gln Gly Glu Asn Gln Pro
 115 120 125 130
 Asp Leu Glu Asp Leu Lys Ile Lys Ile Met Leu Gly Ile Ser Leu Met
 135 140 145
 20 Thr Leu Leu Leu Phe Val Val Leu Leu Ala Phe Cys Ser Ala Thr Leu
 150 155 160
 Tyr Lys Leu Arg His Leu Ser Tyr Lys Ser Cys Glu Ser Gln Tyr Ser
 165 170 175
 Val Asn Pro Glu Leu Ala Thr Met Ser Tyr Phe His Pro Ser Glu Gly
 180 185 190
 25 Val Ser Asp Thr Ser Phe Ser Lys Ser Ala Glu Ser Ser Thr Phe Leu
 195 200 205 210
 Gly Thr Thr Ser Ser Asp Met Arg Arg Ser Gly Thr Arg Thr Ser Glu
 215 220 225
 30 Ser Lys Ile Met Thr Asp Ile Ile Ser Ile Gly Ser Asp Asn Glu Met
 230 235 240
 His Glu Asn Asp Glu Ser Val Thr Arg
 245 250

 <210> 258
 35 <211> 200
 <212> PRT
 <213> Homo sapiens

 <220>
 40 <221> SIGNAL
 <222> -20...-1

 <400> 258
 45 Met Asp Ser Ser Thr Ala His Ser Pro Val Phe Leu Val Phe Pro Pro
 -20 -15 -10 -5
 Glu Ile Thr Ala Ser Glu Tyr Glu Ser Thr Glu Leu Ser Ala Thr Thr
 1 5 10
 Phe Ser Thr Gln Ser Pro Leu Gln Lys Leu Phe Ala Arg Lys Met Lys
 15 20 25
 50 Ile Leu Gly Thr Ile Gln Ile Leu Phe Gly Ile Met Thr Phe Ser Phe
 30 35 40
 Gly Val Ile Phe Leu Phe Thr Leu Leu Lys Pro Tyr Pro Arg Phe Pro
 45 50 55 60
 Phe Ile Phe Leu Ser Gly Tyr Pro Phe Trp Gly Ser Val Leu Phe Ile
 55 65 70 75
 Asn Ser Gly Ala Phe Leu Ile Ala Val Lys Arg Lys Thr Thr Glu Thr
 80 85 90
 Leu Ile Ile Leu Ser Arg Ile Met Asn Phe Leu Ser Ala Leu Gly Ala
 95 100 105
 60 Ile Ala Gly Ile Ile Leu Leu Thr Phe Gly Phe Ile Leu Asp Gln Asn
 110 115 120
 Tyr Ile Cys Gly Tyr Ser His Gln Asn Ser Gln Cys Lys Ala Val Thr
 125 130 135 140

Val Leu Phe Leu Gly Ile Leu Ile Thr Leu Met Thr Phe Ser Ile Ile
 145 150 155
 Glu Leu Phe Ile Ser Leu Pro Phe Ser Ile Leu Gly Cys His Ser Glu
 160 165 170
 5 Asp Cys Asp Cys Glu Gln Cys Cys
 175 180

 <210> 259
 <211> 394
 10 <212> PRT
 <213> Homo sapiens

 <220>
 <221> SIGNAL
 15 <222> -39...-1

 <400> 259
 Met Ala Thr Ala Gln Leu Gln Arg Thr Pro Met Ser Ala Leu Val Phe
 -35 -30 -25
 20 Pro Asn Lys Ile Ser Thr Glu His Gln Ser Leu Val Leu Val Lys Arg
 -20 -15 -10
 Leu Leu Ala Val Ser Val Ser Cys Ile Thr Tyr Leu Arg Gly Ile Phe
 -5 1 5
 Pro Glu Cys Ala Tyr Gly Thr Arg Tyr Leu Asp Asp Leu Cys Val Lys
 25 10 15 20 25
 Ile Leu Arg Glu Asp Lys Asn Cys Pro Gly Ser Thr Gln Leu Val Lys
 30 35 40
 Trp Ile Leu Gly Cys Tyr Asp Ala Leu Gln Lys Lys Tyr Leu Arg Met
 45 50 55
 30 Val Val Leu Ala Val Tyr Thr Asn Pro Glu Asp Pro Gln Thr Ile Ser
 60 65 70
 Glu Cys Tyr Gln Phe Lys Phe Lys Tyr Thr Asn Asn Gly Pro Leu Met
 75 80 85
 Asp Phe Ile Ser Lys Asn Gln Ser Asn Glu Ser Ser Met Leu Ser Thr
 35 90 95 100 105
 Asp Thr Lys Lys Ala Ser Ile Leu Leu Ile Arg Lys Ile Tyr Ile Leu
 110 115 120
 Met Gln Asn Leu Gly Pro Leu Pro Asn Asp Val Cys Leu Thr Met Lys
 125 130 135
 40 Leu Phe Tyr Tyr Asp Glu Val Thr Pro Pro Asp Tyr Gln Pro Pro Gly
 140 145 150
 Phe Lys Asp Gly Asp Cys Glu Gly Val Ile Phe Glu Gly Glu Pro Met
 155 160 165
 Tyr Leu Asn Val Gly Glu Val Ser Thr Pro Phe His Ile Phe Lys Val
 45 170 175 180 185
 Lys Val Thr Thr Glu Arg Glu Arg Met Glu Asn Ile Asp Ser Thr Ile
 190 195 200
 Leu Ser Pro Lys Gln Ile Lys Thr Pro Phe Gln Lys Ile Leu Arg Asp
 205 210 215
 50 Lys Asp Val Glu Asp Glu Gln Glu His Tyr Thr Ser Asp Asp Leu Asp
 220 225 230
 Ile Glu Thr Lys Met Glu Glu Gln Glu Lys Asn Pro Ala Ser Ser Glu
 235 240 245
 Leu Glu Glu Pro Ser Leu Val Cys Glu Glu Asp Glu Ile Met Arg Ser
 55 250 255 260 265
 Lys Glu Ser Pro Asp Leu Ser Ile Ser His Ser Gln Val Glu Gln Leu
 270 275 280
 Val Asn Lys Thr Ser Glu Leu Asp Met Ser Glu Ser Lys Thr Arg Ser
 285 290 295
 60 Gly Lys Val Phe Gln Asn Lys Met Ala Asn Gly Asn Gln Pro Val Lys
 300 305 310
 Ser Ser Lys Glu Asn Arg Lys Arg Ser Gln His Glu Ser Gly Arg Ile
 315 320 325

Val Leu His His Phe Asp Ser Ser Ser Gln Glu Ser Val Pro Lys Arg
 330 335 340 345
 Arg Lys Phe Ser Glu Pro Lys Glu His Ile
 350 355

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<210> 260
 <211> 158
 <212> PRT
 <213> Homo sapiens

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<220>
 <221> SIGNAL
 <222> -17...-1

15

<400> 260
 Met Ala Leu Glu Val Leu Met Leu Leu Ala Val Leu Ile Trp Thr Gly
 -15 -10 -5
 Ala Glu Asn Leu His Val Lys Ile Ser Cys Ser Leu Asp Trp Leu Met
 1 5 10 15
 20 Val Ser Val Ile Pro Val Ala Glu Ser Arg Asn Leu Tyr Ile Phe Ala
 20 25 30
 Asp Glu Leu His Leu Gly Met Gly Cys Pro Ala Asn Arg Ile His Thr
 35 40 45
 Tyr Val Tyr Glu Phe Ile Tyr Leu Val Arg Asp Cys Gly Ile Arg Thr
 50 55 60
 25 Arg Val Val Ser Glu Glu Thr Leu Leu Phe Gln Thr Glu Leu Tyr Phe
 65 70 75
 Thr Pro Arg Asn Ile Asp His Asp Pro Gln Glu Ile His Leu Glu Cys
 80 85 90 95
 30 Ser Thr Ser Arg Lys Ser Val Trp Leu Thr Pro Val Ser Thr Glu Asn
 100 105 110
 Glu Ile Lys Leu Asp Pro Ser Pro Phe Ile Ala Asp Phe Gln Thr Thr
 115 120 125
 Ala Glu Glu Leu Gly Leu Leu Ser Ser Ser Pro Asn Leu Leu
 130 135 140

35

<210> 261
 <211> 233
 <212> PRT
 40 <213> Homo sapiens

<220>
 <221> SIGNAL
 <222> -32...-1

45

<400> 261
 Met Ala Thr Pro Pro Phe Arg Leu Ile Arg Lys Met Phe Ser Phe Lys
 -30 -25 -20
 Val Ser Arg Trp Met Gly Leu Ala Cys Phe Arg Ser Leu Ala Ala Ser
 -15 -10 -5
 50 Ser Pro Ser Ile Arg Gln Lys Lys Leu Met His Lys Leu Gln Glu Glu
 1 5 10 15
 Lys Ala Phe Arg Glu Glu Met Lys Ile Phe Arg Glu Lys Ile Glu Asp
 20 25 30
 55 Phe Arg Glu Glu Met Trp Thr Phe Arg Gly Lys Ile His Ala Phe Arg
 35 40 45
 Gly Gln Ile Leu Gly Phe Trp Glu Glu Glu Arg Pro Phe Trp Glu Glu
 50 55 60
 Glu Lys Thr Phe Trp Lys Glu Glu Lys Ser Phe Trp Glu Met Glu Lys
 65 70 75 80
 60 Ser Phe Arg Glu Glu Glu Lys Thr Phe Trp Lys Lys Tyr Arg Thr Phe
 85 90 95
 Trp Lys Glu Asp Lys Ala Phe Trp Lys Glu Asp Asn Ala Leu Trp Glu

100 105 110
 Arg Asp Arg Asn Leu Leu Gln Glu Asp Lys Ala Leu Trp Glu Glu Glu
 115 120 125
 Lys Ala Leu Trp Val Glu Glu Arg Ala Leu Leu Glu Gly Glu Lys Ala
 130 135 140
 5 Leu Trp Glu Asp Lys Thr Ser Leu Trp Glu Glu Glu Asn Ala Leu Trp
 145 150 155 160
 Glu Glu Glu Arg Ala Phe Trp Met Glu Asn Asn Gly His Ile Ala Gly
 165 170 175
 10 Glu Gln Met Leu Glu Asp Gly Pro His Asn Ala Asn Arg Gly Gln Arg
 180 185 190
 Leu Leu Ala Phe Ser Arg Gly Arg Ala
 195 200

 15 <210> 262
 <211> 67
 <212> PRT
 <213> Homo sapiens

 20 <220>
 <221> SIGNAL
 <222> -20...-1

 <400> 262
 25 Met Asp Ser Ser Thr Ala His Ser Pro Val Phe Leu Val Phe Pro Pro
 -20 -15 -10 -5
 Glu Ile Thr Ala Ser Glu Tyr Glu Ser Thr Glu Leu Ser Ala Thr Thr
 1 5 10
 Phe Ser Thr Gln Ser Pro Leu Gln Lys Leu Phe Ala Arg Lys Met Lys
 15 20 25
 30 Ile Leu Gly Asp Ile His Ser Gly Ala Leu Phe Cys Ser Leu Ile Leu
 30 35 40
 Glu Pro Ser
 45
 35 <210> 263
 <211> 94
 <212> PRT
 <213> Homo sapiens

 40 <220>
 <221> SIGNAL
 <222> -25...-1

 45 <400> 263
 Met Cys Phe Leu Val Ser Phe Asn Leu Pro Ile His Ile Ser Leu Ser
 -25 -20 -15 -10
 His Leu Phe Leu Asp Leu Ser Arg Ser Leu Trp Phe Leu Ala Cys Pro
 -5 1 5
 50 Gly Leu Asn Leu Val Tyr Leu Ala Leu Asp Ser Phe Ser Asp Leu Arg
 10 15 20
 Pro Ser Leu Asn Leu Leu Phe Tyr Phe Val Pro Gly Phe Gly Val Ser
 25 30 35
 Lys Tyr Leu Thr Ser Ala Gln Pro Val Leu Gly Phe Leu Leu Leu Pro
 40 45 50 55
 55 Asp Ile Asp Asn Pro Ala Leu Leu Gly Thr Glu Arg Trp Ser
 60 65

 <210> 264
 60 <211> 174
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 <222> -19...-1

5 <400> 264
 Met Phe Leu Thr Val Lys Leu Leu Leu Gly Gln Arg Cys Ser Leu Lys
 -15 -10 -5
 Val Ser Gly Gln Glu Ser Val Ala Thr Leu Lys Arg Leu Val Ser Arg
 1 5 10
 10 Arg Leu Lys Val Pro Glu Glu Gln Gln His Leu Leu Phe Arg Gly Gln
 15 20 25
 Leu Leu Glu Asp Asp Lys His Leu Ser Asp Tyr Cys Ile Gly Pro Asn
 30 35 40 45
 Ala Ser Ile Asn Val Ile Met Gln Pro Leu Glu Lys Met Ala Leu Lys
 15 50 55 60
 Glu Ala His Gln Pro Gln Thr Gln Pro Leu Trp His Gln Leu Gly Leu
 65 70 75
 Val Leu Ala Lys His Phe Glu Pro Gln Asp Ala Lys Ala Val Leu Gln
 80 85 90
 20 Leu Leu Arg Gln Glu His Glu Glu Arg Leu Gln Lys Ile Ser Leu Glu
 95 100 105
 His Leu Glu Gln Leu Ala Gln Tyr Leu Leu Ala Glu Glu Pro His Val
 110 115 120 125
 Glu Pro Ala Gly Glu Arg Glu Leu Glu Ala Lys Ala Arg Pro Gln Ser
 25 130 135 140
 Ser Cys Asp Met Glu Glu Lys Glu Glu Ala Ala Ala Asp Gln
 145 150 155

<210> 265
 30 <211> 106
 <212> PRT
 <213> Homo sapiens

<220>
 35 <221> SIGNAL
 <222> -17...-1

<400> 265
 Met Ala Leu Glu Val Leu Met Leu Leu Ala Val Leu Ile Trp Thr Gly
 40 -15 -10 -5
 Ala Glu Asn Leu His Val Lys Ile Ser Cys Ser Leu Asp Trp Leu Met
 1 5 10 15
 Val Ser Val Ile Pro Val Ala Glu Ser Arg Asn Leu Tyr Ile Phe Ala
 20 25 30
 45 Asp Glu Leu His Leu Gly Met Gly Cys Pro Ala Asn Arg Ile His Thr
 35 40 45
 Tyr Val Tyr Glu Phe Ile Tyr Leu Val Arg Asp Cys Gly Ile Arg Thr
 50 55 60
 Arg Val Arg Thr Val Ile Val Cys Lys Lys Tyr Cys Met Phe Cys Gln
 50 65 70 75
 Thr Phe Met Pro Ser Ile Lys Ile Val Phe
 80 85

<210> 266
 55 <211> 124
 <212> PRT
 <213> Homo sapiens

<220>
 60 <221> SIGNAL
 <222> -18...-1

<400> 266

Met Val Leu Cys Trp Leu Leu Leu Leu Val Met Ala Leu Pro Pro Gly
 -15 -10 -5
 Thr Thr Gly Val Lys Asp Cys Val Phe Cys Glu Leu Thr Asp Ser Met
 1 5 10
 5 Gln Cys Pro Gly Thr Tyr Met His Cys Gly Asp Asp Glu Asp Cys Phe
 15 20 25 30
 Thr Gly His Gly Val Ala Pro Gly Thr Gly Pro Val Ile Asn Lys Gly
 35 40 45
 Cys Leu Arg Ala Thr Ser Cys Gly Leu Glu Glu Pro Val Ser Tyr Arg
 50 55 60
 10 Gly Val Thr Tyr Ser Leu Thr Thr Asn Cys Cys Thr Gly Arg Leu Cys
 65 70 75
 Asn Arg Ala Pro Ser Ser Gln Thr Val Gly Ala Thr Thr Ser Leu Ala
 80 85 90
 15 Leu Gly Leu Gly Met Leu Leu Pro Pro Arg Leu Leu
 95 100 105

<210> 267

<211> 261

20 <212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

25 <222> -16...-1

<400> 267

Met Glu Asn Phe Ser Leu Leu Ser Ile Ser Gly Pro Pro Ile Ser Ser
 -15 -10 -5
 30 Ser Ala Leu Ser Ala Phe Pro Asp Ile Met Phe Ser Arg Ala Thr Ser
 1 5 10 15
 Leu Pro Asp Ile Ala Lys Thr Ala Val Pro Thr Glu Ala Ser Ser Pro
 20 25 30
 35 Ala Gln Ala Leu Pro Pro Gln Tyr Gln Ser Ile Ile Val Arg Gln Gly
 35 40 45
 Ile Gln Asn Thr Val Leu Ser Pro Asp Cys Ser Leu Gly Asp Thr Gln
 50 55 60
 His Gly Glu Lys Leu Arg Arg Asn Cys Thr Ile Tyr Arg Pro Trp Phe
 65 70 75 80
 40 Ser Pro Tyr Ser Tyr Phe Val Cys Ala Asp Lys Glu Ser Gln Leu Glu
 85 90 95
 Ala Tyr Asp Phe Pro Glu Val Gln Gln Asp Glu Gly Lys Trp Asp Asn
 100 105 110
 Cys Leu Ser Glu Asp Met Ala Glu Asn Ile Cys Ser Ser Ser Ser Ser
 115 120 125
 45 Pro Glu Asn Thr Cys Pro Arg Glu Ala Thr Lys Lys Ser Arg His Gly
 130 135 140
 Leu Asp Ser Ile Thr Ser Gln Asp Ile Leu Met Ala Ser Arg Trp His
 145 150 155 160
 50 Pro Ala Gln Gln Asn Gly Tyr Lys Cys Val Ala Cys Cys Arg Met Tyr
 165 170 175
 Pro Thr Leu Asp Phe Leu Lys Ser His Ile Lys Arg Gly Phe Arg Glu
 180 185 190
 Gly Phe Ser Cys Lys Val Tyr Tyr Arg Lys Leu Lys Ala Leu Trp Ser
 195 200 205
 55 Lys Glu Gln Lys Ala Arg Leu Gly Asp Arg Leu Ser Ser Gly Ser Cys
 210 215 220
 Gln Ala Phe Asn Ser Pro Ala Glu His Leu Arg Gln Ile Gly Gly Glu
 225 230 235 240
 60 Ala Tyr Leu Cys Leu
 245

<210> 268

<211> 76
 <212> PRT
 <213> Homo sapiens

5 <220>
 <221> SIGNAL
 <222> -25...-1

<400> 268

10 Met Cys Met Ser Leu Ser Met Lys Val Pro Cys Cys Leu Cys Ala Leu
 -25 -20 -15 -10
 Leu Ser Asn Phe Cys Pro Ser Thr Thr Val Lys Gly Asp Val Val Thr
 -5 1 5
 Ser Phe Phe Arg Ala Asp Tyr Asp Leu Ala Ser Arg Ser Ala Asp Gln
 10 15 20
 15 Ser Ser Gln Lys Val Lys Leu Arg Met Phe Thr Gly Arg Leu Pro Ile
 25 30 35
 Gly Pro Phe Ala Ser Val Gly Asn Ala Ala Glu Leu
 40 45 50

20 <210> 269
 <211> 199
 <212> PRT
 <213> Homo sapiens

25 <220>
 <221> SIGNAL
 <222> -16...-1

30 <400> 269

Met Glu Thr Phe Pro Leu Leu Leu Leu Ser Leu Gly Leu Val Leu Ala
 -15 -10 -5
 Glu Ala Ser Glu Ser Thr Met Lys Ile Ile Lys Glu Glu Phe Thr Asp
 1 5 10 15
 35 Glu Glu Met Gln Tyr Asp Met Ala Lys Ser Gly Gln Glu Lys Gln Thr
 20 25 30
 Ile Glu Ile Leu Met Asn Pro Ile Leu Leu Val Lys Asn Thr Ser Leu
 35 40 45
 Ser Met Ser Lys Asp Asp Met Ser Ser Thr Leu Leu Thr Phe Arg Ser
 40 50 55 60
 Leu His Tyr Asn Asp Pro Lys Gly Asn Ser Ser Gly Asn Asp Lys Glu
 65 70 75 80
 Cys Cys Asn Asp Met Thr Val Trp Arg Lys Val Ser Glu Ala Asn Gly
 85 90 95
 45 Ser Cys Lys Trp Ser Asn Asn Phe Ile Arg Ser Ser Thr Glu Val Met
 100 105 110
 Arg Arg Val His Arg Ala Pro Ser Cys Lys Phe Val Gln Asn Pro Gly
 115 120 125
 Ile Ser Cys Cys Glu Ser Leu Glu Leu Glu Asn Thr Val Cys Gln Phe
 130 135 140
 50 Thr Thr Gly Lys Gln Phe Pro Arg Cys Gln Tyr His Ser Val Thr Ser
 145 150 155 160
 Leu Glu Lys Ile Leu Thr Val Leu Thr Gly His Ser Leu Met Ser Trp
 165 170 175
 55 Leu Val Cys Gly Ser Lys Leu
 180

<210> 270
 <211> 88
 60 <212> PRT
 <213> Homo sapiens

<220>

<221> SIGNAL
 <222> -36...-1

<400> 270
 5 Met Ala Ser Val Val Pro Val Lys Asp Lys Lys Leu Leu Glu Val Lys
 -35 -30 -25
 Leu Gly Glu Leu Pro Ser Trp Ile Leu Met Arg Asp Phe Ser Pro Ser
 -20 -15 -10 -5
 Gly Ile Phe Gly Ala Phe Gln Arg Gly Tyr Tyr Arg Tyr Tyr Asn Lys
 10 1 5 10
 Tyr Ile Asn Val Lys Lys Gly Ser Ile Ser Gly Ile Thr Met Val Leu
 15 20 25
 Ala Cys Tyr Val Leu Phe Ser Tyr Ser Phe Ser Tyr Lys His Leu Lys
 30 35 40
 15 His Glu Arg Leu Arg Lys Tyr His
 45 50

<210> 271
 <211> 481
 20 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 25 <222> -25...-1

<400> 271
 Met Gly Ala Leu Ala Arg Ala Leu Pro Ser Ile Leu Leu Ala Leu Leu
 -25 -20 -15 -10
 30 Leu Thr Ser Thr Pro Glu Ala Leu Gly Ala Asn Pro Gly Leu Val Ala
 -5 1 5
 Arg Ile Thr Asp Lys Gly Leu Gln Tyr Ala Ala Gln Glu Gly Leu Leu
 10 15 20
 Ala Leu Gln Ser Glu Leu Leu Arg Ile Thr Leu Pro Asp Phe Thr Gly
 35 25 30 35
 Asp Leu Arg Ile Pro His Val Gly Arg Gly Arg Tyr Glu Phe His Ser
 40 45 50 55
 Leu Asn Ile His Ser Cys Glu Leu Leu His Ser Ala Leu Arg Pro Val
 60 65 70
 40 Pro Gly Gln Gly Leu Ser Leu Ser Ile Ser Asp Ser Ser Ile Arg Val
 75 80 85
 Gln Gly Arg Trp Lys Val Arg Lys Ser Phe Phe Lys Leu Gln Gly Ser
 90 95 100
 Phe Asp Val Ser Val Lys Gly Ile Ser Ile Ser Val Asn Leu Leu Leu
 45 105 110 115
 Gly Ser Asp Ser Ser Gly Arg Pro Thr Val Thr Ala Ser Ser Cys Ser
 120 125 130 135
 Ser Asp Ile Ala Asp Val Glu Val Asp Met Ser Gly Asp Leu Gly Trp
 140 145 150
 50 Leu Leu Asn Leu Phe His Asn Gln Ile Glu Ser Lys Phe Gln Lys Val
 155 160 165
 Leu Glu Ser Arg Ile Cys Glu Met Ile Gln Lys Ser Val Ser Ser Asp
 170 175 180
 Leu Gln Pro Tyr Leu Gln Thr Leu Thr Val Thr Thr Glu Ile Asp Ser
 55 185 190 195
 Phe Ala Asp Ile Asp Tyr Ser Leu Val Glu Ala Pro Arg Ala Thr Ala
 200 205 210 215
 Gln Met Leu Glu Val Met Phe Lys Gly Glu Ile Phe His Arg Asn His
 220 225 230
 60 Arg Ser Pro Val Thr Leu Leu Ala Ala Val Met Ser Leu Pro Glu Glu
 235 240 245
 His Asn Lys Met Val Tyr Phe Ala Ile Ser Asp Tyr Val Phe Asn Thr
 250 255 260

Ala Ser Leu Val Tyr His Glu Glu Gly Tyr Leu Asn Phe Ser Ile Thr
 265 270 275
 Asp Asp Met Ile Pro Pro Asp Ser Asn Ile Arg Leu Thr Thr Lys Ser
 280 285 290 295
 5 Phe Arg Pro Phe Val Pro Arg Leu Ala Arg Leu Tyr Pro Asn Met Asn
 300 305 310
 Leu Glu Leu Gln Gly Ser Val Pro Ser Ala Pro Leu Leu Asn Phe Ser
 315 320 325
 10 Pro Gly Asn Leu Ser Val Asp Pro Tyr Met Glu Ile Asp Ala Phe Val
 330 335 340
 Leu Leu Pro Ser Ser Ser Lys Glu Pro Val Phe Arg Leu Ser Val Ala
 345 350 355
 Thr Asn Val Ser Ala Thr Leu Thr Phe Asn Thr Ser Lys Ile Thr Gly
 360 365 370 375
 15 Phe Leu Lys Pro Gly Lys Val Lys Val Glu Leu Lys Glu Ser Lys Val
 380 385 390
 Gly Leu Phe Asn Ala Glu Leu Leu Glu Ala Leu Leu Asn Tyr Tyr Ile
 395 400 405
 20 Leu Asn Thr Phe Tyr Pro Lys Phe Asn Asp Lys Leu Ala Glu Gly Phe
 410 415 420
 Pro Leu Pro Leu Leu Lys Arg Val Gln Leu Tyr Asp Leu Gly Leu Gln
 425 430 435
 Ile His Lys Asp Phe Leu Phe Leu Gly Ala Asn Val Gln Tyr Met Arg
 440 445 450 455
 25 Val

<210> 272

<211> 143

<212> PRT

30 <213> Homo sapiens

<220>

<221> SIGNAL

<222> -43...-1

35

<400> 272

Met Ala Lys Tyr Gln Gly Glu Val Gln Ser Leu Lys Leu Asp Asp Asp
 -40 -35 -30
 40 Ser Val Ile Glu Gly Val Ser Asp Gln Val Leu Val Ala Val Val Val
 -25 -20 -15
 Ser Phe Ala Leu Ile Ala Thr Leu Val Tyr Ala Leu Phe Arg Asn Val
 -10 -5 1 5
 His Gln Asn Ile His Pro Glu Asn Gln Glu Leu Val Arg Val Leu Arg
 10 15 20
 45 Glu Gln Leu Gln Thr Glu Gln Asp Ala Pro Ala Ala Thr Arg Gln Gln
 25 30 35
 Phe Tyr Thr Asp Met Tyr Cys Pro Ile Cys Leu His Gln Ala Ser Phe
 40 45 50
 50 Pro Val Glu Thr Asn Cys Gly His Leu Phe Cys Gly Ala Cys Ile Ile
 55 60 65
 Ala Tyr Trp Arg Tyr Gly Ser Trp Leu Gly Ala Ile Ser Cys Pro Ile
 70 75 80 85
 Cys Arg Gln Thr Arg His Gly His Ile Ala Leu Ser Arg Thr Ala
 90 95 100

55

<210> 273

<211> 82

<212> PRT

<213> Homo sapiens

60

<400> 273

Met Ala Lys Tyr Gln Gly Glu Val Gln Ser Leu Lys Leu Asp Asp Asp
 1 5 10 15

Ser Val Ile Glu Gly Val Ser Asp Gln Val Leu Val Ala Val Val Val
 20 25 30
 Ser Phe Ala Leu Ile Ala Thr Leu Val Tyr Ala Leu Phe Arg Asn Val
 35 40 45
 5 His Gln Asn Ile His Pro Glu Asn Gln Glu Leu Val Arg Val Leu Arg
 50 55 60
 Glu Gln Leu Gln Thr Glu Gln Asp Ala Pro Ala Asp Ser Thr Ala Val
 65 70 75 80
 Leu His
 10
 <210> 274
 <211> 373
 <212> PRT
 <213> Homo sapiens
 15
 <220>
 <221> SIGNAL
 <222> -27...-1
 20
 <400> 274
 Met Ala Thr Gln Ala His Ser Leu Ser Tyr Ala Gly Cys Asn Phe Leu
 -25 -20 -15
 Cys Gln Arg Leu Val Leu Ser Thr Leu Ser Gly Arg Pro Val Lys Ile
 -10 -5 1 5
 25 Arg Lys Ile Arg Ala Arg Asp Asp Asn Pro Gly Leu Arg Asp Phe Glu
 10 15 20
 Ala Ser Phe Ile Arg Leu Leu Asp Lys Ile Thr Asn Gly Ser Arg Ile
 25 30 35
 Glu Ile Asn Gln Thr Gly Thr Thr Leu Tyr Tyr Gln Pro Gly Leu Leu
 40 40 45 50
 Tyr Gly Gly Ser Val Glu His Asp Cys Ser Val Leu Arg Gly Ile Gly
 55 60 65
 Tyr Tyr Leu Glu Ser Leu Leu Cys Leu Ala Pro Phe Met Lys His Pro
 70 75 80 85
 35 Leu Lys Ile Val Leu Arg Gly Val Thr Asn Asp Gln Ile Asp Pro Ser
 90 95 100
 Val Asp Val Leu Lys Ala Thr Ala Leu Pro Leu Leu Lys Gln Phe Gly
 105 110 115
 Ile Asp Gly Glu Ser Phe Glu Leu Lys Ile Val Arg Arg Gly Met Pro
 40 120 125 130
 Pro Gly Gly Gly Gly Glu Val Val Phe Ser Cys Pro Val Arg Lys Val
 135 140 145
 Leu Lys Pro Ile Gln Leu Thr Asp Pro Gly Lys Ile Lys Arg Ile Arg
 150 155 160 165
 45 Gly Met Ala Tyr Ser Val Arg Val Ser Pro Gln Met Ala Asn Arg Ile
 170 175 180
 Val Asp Ser Ala Arg Ser Ile Leu Asn Lys Phe Ile Pro Asp Ile Tyr
 185 190 195
 Ile Tyr Thr Asp His Ile Lys Gly Val Asn Ser Gly Lys Ser Pro Gly
 50 200 205 210
 Phe Gly Leu Ser Leu Val Ala Glu Thr Thr Ser Gly Thr Phe Leu Ser
 215 220 225
 Ala Glu Leu Ala Ser Asn Pro Gln Gly Gln Gly Ala Ala Val Leu Pro
 230 235 240 245
 55 Glu Asp Leu Gly Arg Asn Cys Ala Arg Leu Leu Leu Glu Glu Ile Tyr
 250 255 260
 Arg Gly Gly Cys Val Asp Ser Thr Asn Gln Ser Leu Ala Leu Leu Leu
 265 270 275
 Met Thr Leu Gly Gln Gln Asp Val Ser Lys Val Leu Leu Gly Pro Leu
 60 280 285 290
 Ser Pro Tyr Thr Ile Glu Phe Leu Arg His Leu Lys Ser Phe Phe Gln
 295 300 305
 Ile Met Phe Lys Ile Glu Thr Lys Pro Cys Gly Glu Glu Leu Lys Gly

310 Gly Asp Lys Val Leu Met Thr Cys Val Gly Ile Gly Phe Ser Asn Leu
 315 330 335 340 325
 Ser Arg Thr Leu Lys
 5 345

 <210> 275
 <211> 94
 <212> PRT
 10 <213> Homo sapiens

 <220>
 <221> SIGNAL
 <222> -25...-1
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 <400> 275
 Met Ala Ser Val Val Leu Ala Leu Arg Thr Arg Thr Ala Val Thr Ser
 -25 -20 -15 -10
 Leu Leu Ser Pro Thr Pro Ala Thr Ala Leu Ala Val Arg Tyr Ala Ser
 20 -5 1 5
 Lys Lys Ser Gly Gly Ser Ser Lys Asn Leu Gly Gly Lys Ser Ser Gly
 10 15 20
 Arg Arg Gln Gly Ile Lys Lys Met Glu Gly His Tyr Val His Ala Gly
 25 30 35
 25 Asn Ile Ile Ala Thr Gln Arg His Phe Arg Trp His Pro Gly Ala His
 40 45 50 55
 Val Ser Cys Ser Val Ala Ala Pro Leu Phe Pro Phe Leu Gly
 60 65

 30 <210> 276
 <211> 197
 <212> PRT
 <213> Homo sapiens

 35 <220>
 <221> SIGNAL
 <222> -20...-1

 <400> 276
 40 Met Thr Val Leu Glu Ile Thr Leu Ala Val Ile Leu Thr Leu Leu Gly
 -20 -15 -10 -5
 Leu Ala Ile Leu Ala Ile Leu Leu Thr Arg Trp Ala Arg Arg Lys Gln
 1 5 10
 Ser Glu Met Tyr Ile Ser Arg Tyr Ser Ser Glu Gln Ser Ala Arg Leu
 45 15 20 25
 Leu Asp Tyr Glu Asp Gly Arg Gly Ser Arg His Ala Tyr Ser Thr Gln
 30 35 40
 Ser Glu Arg Ser Lys Arg Asp Tyr Thr Pro Ser Thr Asn Ser Leu Ala
 45 50 55 60
 50 Leu Ser Arg Ser Ser Ile Ala Leu Pro Gln Gly Ser Met Ser Ser Ile
 65 70 75
 Lys Cys Leu Gln Thr Thr Glu Glu Pro Pro Ser Arg Thr Ala Gly Ala
 80 85 90
 Met Met Gln Phe Thr Ala Pro Ile Pro Gly Ala Thr Gly Pro Ile Lys
 55 95 100 105
 Leu Ser Gln Lys Thr Ile Val Gln Thr Leu Gly Pro Ile Val Gln Tyr
 110 115 120
 Pro Gly Ser Asn Gly Arg Ile Asn Ile Ser Gln Leu Thr Ser Glu Asp
 125 130 135 140
 60 Leu Thr Gly Ala Lys Gly Arg Val Thr Ser Gly Pro Gln Phe Pro Asn
 145 150 155
 Ser His His Val Pro Glu Asn Leu His Gly Tyr Met Asn Ser Leu Ser
 160 165 170

Leu Phe Ser Pro Ala
175

<210> 277
5 <211> 344
<212> PRT
<213> Homo sapiens

<220>
10 <221> SIGNAL
<222> -29...-1

<400> 277
15 Met Asp Phe Leu Val Leu Phe Leu Phe Tyr Leu Ala Ser Val Leu Met
-25 -20 -15
Gly Leu Val Leu Ile Cys Val Cys Ser Lys Thr His Ser Leu Lys Gly
-10 -5 1
Leu Ala Arg Gly Gly Ala Gln Ile Phe Ser Cys Ile Ile Pro Glu Cys
5 10 15
20 Leu Gln Arg Ala Val His Gly Leu Leu His Tyr Leu Phe His Thr Arg
20 25 30 35
Asn His Thr Phe Ile Val Leu His Leu Val Leu Gln Gly Met Val Tyr
40 45 50
Thr Glu Tyr Thr Trp Glu Val Phe Gly Tyr Cys Gln Glu Leu Glu Leu
25 55 60 65
Ser Leu His Tyr Leu Leu Leu Pro Tyr Leu Leu Leu Gly Val Asn Leu
70 75 80
Phe Phe Phe Thr Leu Thr Cys Gly Thr Asn Pro Gly Ile Ile Thr Lys
85 90 95
30 Ala Asn Glu Leu Leu Phe Leu His Val Tyr Glu Phe Asp Glu Val Met
100 105 110 115
Phe Pro Lys Asn Val Arg Cys Ser Thr Cys Asp Leu Arg Lys Pro Ala
120 125 130
Arg Ser Lys His Cys Ser Val Cys Asn Trp Cys Val His Arg Phe Asp
35 135 140 145
His His Cys Val Trp Val Asn Asn Cys Ile Gly Ala Trp Asn Ile Arg
150 155 160
Tyr Phe Leu Ile Tyr Val Leu Thr Leu Thr Ala Ser Ala Ala Thr Val
165 170 175
40 Ala Ile Val Ser Thr Thr Phe Leu Val His Leu Val Val Met Ser Asp
180 185 190 195
Leu Tyr Gln Glu Thr Tyr Ile Asp Asp Leu Gly His Leu His Val Met
200 205 210
Asp Thr Val Phe Leu Ile Gln Tyr Leu Phe Leu Thr Phe Pro Arg Ile
45 215 220 225
Val Phe Met Leu Gly Phe Val Val Val Leu Ser Phe Leu Leu Gly Gly
230 235 240
Tyr Leu Leu Phe Val Leu Tyr Leu Ala Ala Thr Asn Gln Thr Thr Asn
245 250 255
50 Glu Trp Tyr Arg Gly Asp Trp Ala Trp Cys Gln Arg Cys Pro Leu Val
260 265 270 275
Ala Trp Pro Pro Ser Ala Glu Pro Gln Val His Arg Asn Ile His Ser
280 285 290
His Gly Leu Arg Ser Asn Leu Gln Glu Ile Phe Leu Pro Ala Phe Pro
55 295 300 305
Cys His Glu Arg Lys Lys Gln Glu
310 315

<210> 278
60 <211> 541
<212> PRT
<213> Homo sapiens

<220>
 <221> SIGNAL
 <222> -28..-1

5 <400> 278
 Met Gly Ser Gln Glu Val Leu Gly His Ala Ala Arg Leu Ser Ser Ser
 -25 -20 -15
 Gly Leu Leu Leu Gln Val Leu Phe Arg Leu Ile Thr Phe Val Leu Asn
 -10 -5 1
 10 Ala Phe Ile Leu Arg Phe Leu Ser Lys Glu Ile Val Gly Val Val Asn
 5 10 15 20
 Val Arg Leu Thr Leu Leu Tyr Ser Thr Thr Leu Phe Leu Ala Arg Glu
 25 30 35
 Ala Phe Arg Arg Ala Cys Leu Ser Gly Gly Thr Gln Arg Asp Trp Ser
 15 40 45 50
 Gln Thr Leu Asn Leu Leu Trp Leu Thr Val Pro Leu Gly Val Phe Trp
 55 60 65
 Ser Leu Phe Leu Gly Trp Ile Trp Leu Gln Leu Leu Glu Val Pro Asp
 70 75 80
 20 Pro Asn Val Val Pro His Tyr Ala Thr Gly Val Val Leu Phe Gly Leu
 85 90 95 100
 Ser Ala Val Val Glu Leu Leu Gly Glu Pro Phe Trp Val Leu Ala Gln
 105 110 115
 Ala His Met Phe Val Lys Leu Lys Val Ile Ala Glu Ser Leu Ser Val
 25 120 125 130
 Ile Leu Lys Thr Val Leu Thr Ala Phe Leu Val Leu Trp Leu Pro His
 135 140 145
 Trp Gly Leu Tyr Ile Phe Ser Leu Ala Gln Leu Phe Tyr Thr Thr Val
 150 155 160
 30 Leu Val Leu Cys Tyr Val Ile Tyr Phe Thr Lys Leu Leu Gly Ser Pro
 165 170 175 180
 Glu Ser Thr Lys Leu Gln Thr Leu Pro Val Ser Arg Ile Thr Asp Leu
 185 190 195
 Leu Pro Asn Ile Thr Arg Asn Gly Ala Phe Ile Asn Trp Lys Glu Ala
 35 200 205 210
 Lys Leu Thr Trp Ser Phe Phe Lys Gln Ser Phe Leu Lys Gln Ile Leu
 215 220 225
 Thr Glu Gly Glu Arg Tyr Val Met Thr Phe Leu Asn Val Leu Asn Phe
 230 235 240
 40 Gly Asp Gln Gly Val Tyr Asp Ile Val Asn Asn Leu Gly Ser Leu Val
 245 250 255 260
 Ala Arg Leu Ile Phe Gln Pro Ile Glu Glu Ser Phe Tyr Ile Phe Phe
 265 270 275
 Ala Lys Val Leu Glu Arg Gly Lys Asp Ala Thr Leu Gln Lys Gln Glu
 45 280 285 290
 Asp Val Ala Val Ala Ala Ala Val Leu Glu Ser Leu Leu Lys Leu Ala
 295 300 305
 Leu Leu Ala Gly Leu Thr Ile Thr Val Phe Gly Phe Ala Tyr Ser Gln
 310 315 320
 50 Leu Ala Leu Asp Ile Tyr Gly Gly Thr Met Leu Ser Ser Gly Ser Gly
 325 330 335 340
 Pro Val Leu Leu Arg Ser Tyr Cys Leu Tyr Val Leu Leu Leu Ala Ile
 345 350 355
 Asn Gly Val Thr Glu Cys Phe Thr Phe Ala Ala Met Ser Lys Glu Glu
 55 360 365 370
 Val Asp Arg Tyr Asn Phe Val Met Leu Ala Leu Ser Ser Ser Phe Leu
 375 380 385
 Val Leu Ser Tyr Leu Leu Thr Arg Trp Cys Gly Ser Val Gly Phe Ile
 390 395 400
 60 Leu Ala Asn Cys Phe Asn Met Gly Ile Arg Ile Thr Gln Ser Leu Cys
 405 410 415 420
 Phe Ile His Arg Tyr Tyr Arg Arg Ser Pro His Arg Pro Leu Ala Gly
 425 430 435

Leu His Leu Ser Pro Val Leu Leu Gly Thr Phe Ala Leu Ser Gly Gly
 440 445 450
 Val Thr Ala Val Ser Glu Val Phe Leu Cys Cys Glu Gln Gly Trp Pro
 455 460 465
 5 Ala Arg Leu Ala His Ile Ala Val Gly Ala Phe Cys Leu Gly Ala Thr
 470 475 480
 Leu Gly Thr Ala Phe Leu Thr Glu Thr Lys Leu Ile His Phe Leu Arg
 485 490 495 500
 Thr Gln Leu Gly Val Pro Arg Arg Thr Asp Lys Met Thr
 10 505 510

<210> 279

<211> 267

<212> PRT

15 <213> Homo sapiens

<220>

<221> SIGNAL

<222> -24...-1

20

<400> 279

Met Ala Arg Phe Leu Thr Leu Cys Thr Trp Leu Leu Leu Leu Gly Pro
 -20 -15 -10
 25 Gly Leu Leu Ala Thr Val Arg Ala Glu Cys Ser Gln Asp Cys Ala Thr
 -5 1 5
 Cys Ser Tyr Arg Leu Val Arg Pro Ala Asp Ile Asn Phe Leu Ala Cys
 10 15 20
 Val Met Glu Cys Glu Gly Lys Leu Pro Ser Leu Lys Ile Trp Glu Thr
 25 30 35 40
 30 Cys Lys Glu Leu Leu Gln Leu Ser Lys Pro Asp Leu Pro Gln Asp Gly
 45 50 55
 Thr Ser Thr Leu Arg Glu Asn Ser Lys Pro Glu Glu Ser His Leu Leu
 60 65 70
 35 Ala Lys Arg Tyr Gly Gly Phe Met Lys Arg Tyr Gly Gly Phe Met Lys
 75 80 85
 Lys Met Asp Glu Leu Tyr Pro Met Glu Pro Glu Glu Glu Ala Asn Gly
 90 95 100
 Ser Glu Ile Leu Ala Lys Arg Tyr Gly Gly Phe Met Lys Lys Asp Ala
 105 110 115 120
 40 Glu Glu Asp Asp Ser Leu Ala Asn Ser Ser Asp Leu Leu Lys Glu Leu
 125 130 135
 Leu Glu Thr Gly Asp Asn Arg Glu Arg Ser His His Gln Asp Gly Ser
 140 145 150
 45 Asp Asn Glu Glu Glu Val Ser Lys Arg Tyr Gly Gly Phe Met Arg Gly
 155 160 165
 Leu Lys Arg Ser Pro Gln Leu Glu Asp Glu Ala Lys Glu Leu Gln Lys
 170 175 180
 Arg Tyr Gly Gly Phe Met Arg Arg Val Gly Arg Pro Glu Trp Trp Met
 185 190 195 200
 50 Asp Tyr Gln Lys Arg Tyr Gly Gly Phe Leu Lys Arg Phe Ala Glu Ala
 205 210 215
 Leu Pro Ser Asp Glu Glu Gly Glu Ser Tyr Ser Lys Glu Val Pro Glu
 220 225 230
 55 Met Glu Lys Arg Tyr Gly Gly Phe Met Arg Phe
 235 240

<210> 280

<211> 362

<212> PRT

60 <213> Homo sapiens

<220>

<221> SIGNAL

<222> -40...-1

<400> 280

5 Met Pro Phe Ala Tyr Phe Phe Thr Glu Ser Glu Gly Phe Ala Gly Ser
 -40 -35 -30 -25
 Arg Lys Gly Val Leu Gly Arg Val Tyr Glu Thr Val Val Met Leu Met
 -20 -15 -10
 Leu Leu Thr Leu Leu Val Leu Gly Met Val Trp Val Ala Ser Ala Ile
 -5 1 5
 10 Val Asp Lys Asn Lys Ala Asn Arg Glu Ser Leu Tyr Asp Phe Trp Glu
 10 15 20
 Tyr Tyr Leu Pro Tyr Leu Tyr Ser Cys Ile Ser Phe Leu Gly Val Leu
 25 30 35 40
 15 Leu Leu Leu Val Cys Thr Pro Leu Gly Leu Ala Arg Met Phe Ser Val
 45 50 55
 Thr Gly Lys Leu Leu Val Lys Pro Arg Leu Leu Glu Asp Leu Glu Glu
 60 65 70
 Gln Leu Tyr Cys Ser Ala Phe Glu Glu Ala Ala Leu Thr Arg Arg Ile
 75 80 85
 20 Cys Asn Pro Thr Ser Cys Trp Leu Pro Leu Asp Met Glu Leu Leu His
 90 95 100
 Arg Gln Val Leu Ala Leu Gln Thr Gln Arg Val Leu Leu Glu Lys Arg
 105 110 115 120
 25 Arg Lys Ala Ser Ala Trp Gln Arg Asn Leu Gly Tyr Pro Leu Ala Met
 125 130 135
 Leu Cys Leu Leu Val Leu Thr Gly Leu Ser Val Leu Ile Val Ala Ile
 140 145 150
 His Ile Leu Glu Leu Leu Ile Asp Glu Ala Ala Met Pro Arg Gly Met
 155 160 165
 30 Gln Gly Thr Ser Leu Gly Gln Val Ser Phe Ser Lys Leu Gly Ser Phe
 170 175 180
 Gly Ala Val Ile Gln Val Val Leu Ile Phe Tyr Leu Met Val Ser Ser
 185 190 195 200
 Val Val Gly Phe Tyr Ser Ser Pro Leu Phe Arg Ser Leu Arg Pro Arg
 205 210 215
 35 Trp His Asp Thr Ala Met Thr Gln Ile Ile Gly Asn Cys Val Cys Leu
 220 225 230
 Leu Val Leu Ser Ser Ala Leu Pro Val Phe Ser Arg Thr Leu Gly Leu
 235 240 245
 40 Thr Arg Phe Asp Leu Leu Gly Asp Phe Gly Arg Phe Asn Trp Leu Gly
 250 255 260
 Asn Phe Tyr Ile Val Phe Leu Tyr Asn Ala Ala Phe Ala Gly Leu Thr
 265 270 275 280
 Thr Leu Tyr Leu Val Lys Thr Phe Thr Ala Ala Val Arg Ala Glu Leu
 285 290 295
 45 Ile Arg Ala Phe Gly Leu Asp Arg Leu Pro Leu Pro Val Ser Gly Phe
 300 305 310
 Pro Gln Ala Ser Arg Lys Thr Gln His Gln
 315 320

50

<210> 281

<211> 81

<212> PRT

<213> Homo sapiens

55

<220>

<221> SIGNAL

<222> -21...-1

60 <400> 281

Met Ser Arg Ser Ser Lys Val Val Leu Gly Leu Ser Val Leu Leu Thr
 -20 -15 -10
 Ala Ala Thr Val Ala Gly Val His Val Lys Gln Gln Trp Asp Gln Gln

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-5          1          5          10
Arg Leu Arg Asp Gly Val Ile Arg Asp Ile Glu Arg Gln Ile Arg Lys
15          20          25
Lys Glu Asn Ile Arg Leu Leu Gly Glu Gln Ile Ile Leu Thr Glu Gln
5          30          35          40
Leu Glu Ala Glu Arg Glu Lys Met Leu Leu Ala Lys Gly Ser Gln Lys
45          50          55
Ser
60
10
<210> 282
<211> 541
<212> PRT
<213> Homo sapiens
15
<220>
<221> SIGNAL
<222> -28...-1
20
<400> 282
Met Gly Ser Gln Glu Val Leu Gly His Ala Ala Arg Leu Ala Ser Ser
-25 -20 -15
Gly Leu Leu Gln Val Leu Phe Arg Leu Ile Thr Phe Val Leu Asn
-10 -5 1
25 Ala Phe Ile Leu Arg Phe Leu Ser Lys Glu Ile Val Gly Val Val Asn
5 10 15 20
Val Arg Leu Thr Leu Leu Tyr Ser Thr Thr Leu Phe Leu Ala Arg Glu
25 30 35
Ala Phe Arg Arg Ala Cys Leu Ser Gly Gly Thr Gln Arg Asp Trp Ser
30 40 45 50
Gln Thr Leu Asn Leu Leu Trp Leu Thr Val Pro Leu Gly Val Phe Trp
55 60 65
Ser Leu Phe Leu Gly Trp Ile Trp Leu Gln Leu Leu Glu Val Pro Asp
70 75 80
35 Pro Asn Val Val Pro His Tyr Ala Thr Gly Val Val Leu Phe Gly Leu
85 90 95 100
Ser Ala Val Val Glu Leu Leu Gly Glu Pro Phe Trp Val Leu Ala Gln
105 110 115
40 Ala His Met Phe Val Lys Leu Lys Val Ile Ala Glu Ser Leu Ser Val
120 125 130
Ile Leu Lys Ser Val Leu Thr Ala Phe Leu Val Leu Trp Leu Pro His
135 140 145
Trp Gly Leu Tyr Ile Phe Ser Leu Ala Gln Leu Phe Tyr Thr Thr Val
150 155 160
45 Leu Val Leu Cys Tyr Val Ile Tyr Phe Thr Lys Leu Leu Gly Ser Pro
165 170 175 180
Glu Ser Thr Lys Leu Gln Thr Leu Pro Val Ser Arg Ile Thr Asp Leu
185 190 195
Leu Pro Asn Ile Thr Arg Asn Gly Ala Phe Ile Asn Trp Lys Glu Ala
50 200 205 210
Lys Leu Thr Trp Ser Phe Phe Lys Gln Ser Phe Leu Lys Gln Ile Leu
215 220 225
Thr Glu Gly Glu Arg Tyr Val Met Thr Phe Leu Asn Val Leu Asn Phe
230 235 240
55 Gly Asp Gln Gly Val Tyr Asp Ile Val Asn Asn Leu Gly Ser Leu Val
245 250 255 260
Ala Arg Leu Ile Phe Gln Pro Ile Glu Glu Ser Phe Tyr Ile Phe Phe
265 270 275
Ala Lys Val Leu Glu Arg Gly Lys Asp Ala Thr Leu Gln Lys Gln Glu
60 280 285 290
Asp Val Ala Val Ala Ala Ala Val Leu Glu Ser Leu Leu Lys Leu Ala
295 300 305
Leu Leu Ala Gly Leu Thr Ile Thr Val Phe Gly Phe Ala Tyr Ser Gln

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310 315 320
 Leu Ala Leu Asp Ile Asn Gly Gly Thr Met Leu Ser Ser Gly Ser Gly
 325 330 335 340
 Pro Val Leu Leu Arg Ser Tyr Cys Leu Tyr Val Leu Leu Leu Ala Ile
 5 345 350 355
 Asn Gly Val Thr Glu Cys Phe Thr Phe Ala Ala Met Ser Lys Glu Glu
 360 365 370
 Val Asp Arg Tyr Asn Phe Val Met Leu Ala Leu Ser Ser Ser Phe Leu
 375 380 385
 10 Val Leu Ser Tyr Leu Leu Thr Arg Trp Cys Gly Ser Val Gly Phe Ile
 390 395 400
 Leu Ala Asn Cys Phe Asn Met Gly Ile Arg Ile Thr Gln Ser Leu Cys
 405 410 415 420
 Phe Ile His Arg Tyr Tyr Arg Arg Ser Pro His Arg Pro Leu Ala Gly
 15 425 430 435
 Leu His Leu Ser Pro Val Leu Leu Gly Thr Phe Ala Leu Ser Gly Gly
 440 445 450
 Val Thr Ala Val Ser Glu Val Phe Leu Cys Cys Glu Gln Gly Trp Pro
 455 460 465
 20 Ala Arg Leu Ala His Ile Ala Val Gly Ala Phe Cys Leu Gly Ala Thr
 470 475 480
 Leu Gly Thr Ala Phe Leu Thr Glu Thr Lys Leu Ile His Phe Leu Arg
 485 490 495 500
 Thr Gln Leu Gly Val Pro Arg Arg Thr Asp Lys Met Thr
 25 505 510

 <210> 283
 <211> 468
 <212> PRT
 30 <213> Homo sapiens

 <220>
 <221> SIGNAL
 <222> -21...-1
 35
 <400> 283
 Met Gly Thr Gln Glu Gly Trp Cys Leu Leu Leu Cys Leu Ala Leu Ser
 -20 -15 -10
 Gly Ala Ala Glu Thr Lys Pro His Pro Ala Glu Gly Gln Trp Arg Ala
 40 -5 1 5 10
 Val Asp Val Val Leu Asp Cys Phe Leu Val Lys Asp Gly Ala His Arg
 15 20 25
 Gly Ala Leu Ala Ser Ser Glu Asp Arg Ala Arg Ala Ser Leu Val Leu
 30 35 40
 45 Lys Gln Val Pro Val Leu Asp Asp Gly Ser Leu Glu Asp Phe Thr Asp
 45 50 55
 Phe Gln Gly Gly Thr Leu Ala Gln Asp Asp Pro Ile Ile Phe Glu
 60 65 70 75
 Ala Ser Val Asp Leu Val Gln Ile Pro Gln Ala Glu Ala Leu Leu His
 50 80 85 90
 Ala Asp Cys Ser Gly Lys Glu Val Thr Cys Glu Ile Ser Arg Tyr Phe
 95 100 105
 Leu Gln Met Thr Glu Thr Thr Val Lys Thr Ala Ala Trp Phe Met Ala
 110 115 120
 55 Asn Val Gln Val Ser Gly Gly Gly Pro Ser Ile Ser Leu Val Met Lys
 125 130 135
 Thr Pro Arg Val Ala Lys Asn Glu Val Leu Trp His Pro Thr Leu Asn
 140 145 150 155
 Leu Pro Leu Ser Pro Gln Gly Thr Val Arg Thr Ala Val Glu Phe Gln
 60 160 165 170
 Val Met Thr Gln Thr Gln Ser Leu Ser Phe Leu Leu Gly Ser Ser Ala
 175 180 185
 Ser Leu Asp Cys Gly Phe Ser Met Ala Pro Gly Leu Asp Leu Ile Ser

		190				195				200						
	Val	Glu	Trp	Arg	Leu	Gln	His	Lys	Gly	Arg	Gly	Gln	Leu	Val	Tyr	Ser
		205					210					215				
	Trp	Thr	Ala	Gly	Gln	Gly	Gln	Ala	Val	Arg	Lys	Gly	Ala	Thr	Leu	Glu
5	220					225					230				235	
	Pro	Ala	Gln	Leu	Gly	Met	Ala	Arg	Asp	Ala	Ser	Leu	Thr	Leu	Pro	Gly
					240					245					250	
	Leu	Thr	Ile	Gln	Asp	Glu	Gly	Thr	Tyr	Ile	Cys	Gln	Ile	Thr	Thr	Ser
				255					260					265		
10	Leu	Tyr	Arg	Ala	Gln	Gln	Ile	Ile	Gln	Leu	Asn	Ile	Gln	Ala	Ser	Pro
			270					275					280			
	Lys	Val	Arg	Leu	Ser	Leu	Ala	Asn	Glu	Ala	Leu	Leu	Pro	Thr	Leu	Ile
		285						290					295			
	Cys	Asp	Ile	Ala	Gly	Tyr	Pro	Leu	Asp	Val	Val	Val	Thr	Trp	Thr	
15	300					305				310					315	
	Arg	Glu	Glu	Leu	Gly	Gly	Ser	Pro	Ala	Gln	Val	Ser	Gly	Ala	Ser	Phe
					320					325					330	
	Ser	Ser	Leu	Arg	Gln	Ser	Val	Ala	Gly	Thr	Tyr	Ser	Ile	Ser	Ser	Ser
				335					340					345		
20	Leu	Thr	Ala	Glu	Pro	Gly	Ser	Ala	Gly	Ala	Thr	Tyr	Thr	Cys	Gln	Val
			350					355						360		
	Thr	His	Ile	Ser	Leu	Glu	Glu	Pro	Leu	Gly	Ala	Ser	Thr	Gln	Val	Val
		365						370					375			
	Pro	Pro	Glu	Arg	Arg	Thr	Ala	Leu	Gly	Val	Ile	Phe	Ala	Ser	Ser	Leu
25	380					385				390					395	
	Phe	Leu	Leu	Ala	Leu	Met	Phe	Leu	Gly	Leu	Gln	Arg	Arg	Gln	Ala	Pro
					400					405					410	
	Thr	Gly	Leu	Gly	Leu	Leu	Gln	Ala	Glu	Arg	Trp	Glu	Thr	Thr	Ser	Cys
			415						420					425		
30	Ala	Asp	Thr	Gln	Ser	Ser	His	Leu	His	Glu	Asp	Arg	Thr	Ala	Arg	Val
			430					435					440			
	Ser	Gln	Pro	Ser												
			445													
35	<210>	284														
	<211>	406														
	<212>	PRT														
	<213>	Homo sapiens														
40	<220>															
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	<222>	-31...-1														
	<400>	284														
45	Met	Val	Arg	Ile	Gln	Arg	Arg	Lys	Leu	Leu	Ala	Ser	Cys	Leu	Cys	Val
		-30					-25					-20				
	Thr	Ala	Thr	Val	Phe	Leu	Leu	Val	Thr	Leu	Gln	Ala	Leu	Asp	Thr	Val
		-15				-10					-5				1	
	Glu	Asn	Leu	Met	Lys	Val	Thr	Gly	Pro	Pro	Gln	Gly	Val	Thr	Asp	Ser
50			5					10					15			
	Met	Gln	Cys	Phe	Asn	Asp	Gln	Trp	Pro	Leu	Ser	Asn	Thr	Arg	Ser	Ser
		20					25					30				
	Glu	His	Ile	Lys	Glu	Val	Met	Val	Glu	Leu	Gly	Lys	Phe	Glu	Arg	Lys
		35					40					45				
55	Glu	Phe	Lys	Ser	Ser	Ser	Leu	Gln	Asp	Gly	His	Thr	Lys	Met	Glu	Glu
	50					55					60				65	
	Ala	Pro	Thr	His	Leu	Asn	Ser	Phe	Leu	Lys	Lys	Glu	Gly	Leu	Thr	Phe
				70					75					80		
	Asn	Arg	Lys	Arg	Lys	Trp	Glu	Leu	Asp	Ser	Tyr	Pro	Ile	Met	Leu	Trp
60				85				90					95			
	Trp	Ser	Pro	Leu	Thr	Gly	Glu	Thr	Gly	Arg	Leu	Gly	Gln	Cys	Gly	Ala
			100				105						110			
	Asp	Ala	Cys	Phe	Phe	Thr	Ile	Asn	Arg	Thr	Tyr	Leu	His	His	His	Met

115 120 125
 Thr Lys Ala Phe Leu Phe Tyr Gly Thr Asp Phe Asn Ile Asp Ser Leu
 130 135 140 145
 Pro Leu Pro Arg Lys Ala His His Asp Trp Ala Val Phe His Glu Glu
 5 150 155 160
 Ser Pro Lys Asn Asn Tyr Lys Leu Phe His Lys Pro Val Ile Thr Leu
 165 170 175
 Phe Asn Tyr Thr Ala Thr Phe Ser Arg His Ser His Leu Pro Leu Thr
 180 185 190
 10 Thr Gln Tyr Leu Glu Ser Ile Glu Val Leu Lys Ser Leu Arg Tyr Leu
 195 200 205
 Val Pro Leu Gln Ser Lys Asn Lys Leu Arg Lys Arg Leu Ala Pro Leu
 210 215 220 225
 Val Tyr Val Gln Ser Tyr Cys Asp Pro Pro Ser Asp Arg Asp Ser Tyr
 15 230 235 240
 Val Arg Glu Leu Met Thr Tyr Ile Glu Val Asp Ser Tyr Gly Glu Cys
 245 250 255
 Leu Arg Asn Lys Asp Leu Pro Gln Gln Leu Lys Asn Pro Ala Ser Met
 260 265 270
 20 Asp Ala Asp Gly Phe Tyr Arg Ile Ile Ala Gln Tyr Lys Phe Ile Leu
 275 280 285
 Ala Phe Glu Asn Ala Val Cys Asp Asp Tyr Ile Thr Glu Lys Phe Trp
 290 295 300 305
 Arg Pro Leu Lys Leu Gly Val Val Pro Val Tyr Tyr Gly Ser Pro Ser
 25 310 315 320
 Ile Thr Asp Trp Leu Pro Ser Asn Lys Ser Ala Ile Leu Val Ser Glu
 325 330 335
 Phe Ser His Pro Arg Glu Leu Ala Ser Tyr Ile Arg Arg Leu Asp Ser
 340 345 350
 30 Asp Asp Arg Leu Tyr Glu Ala Tyr Val Glu Trp Lys Leu Lys Gly Arg
 355 360 365
 Ser Leu Thr Ser Asp Phe
 370 375

 35 <210> 285
 <211> 305
 <212> PRT
 <213> Homo sapiens

 40 <220>
 <221> SIGNAL
 <222> -26...-1

 <400> 285
 45 Met Gly Ile Gln Thr Ser Pro Val Leu Leu Ala Ser Leu Gly Val Gly
 -25 -20 -15
 Leu Val Thr Leu Leu Gly Leu Ala Val Gly Ser Tyr Leu Val Arg Arg
 -10 -5 1 5
 Ser Arg Arg Pro Gln Val Thr Leu Leu Asp Pro Asn Glu Lys Tyr Leu
 50 10 15 20
 Leu Arg Leu Leu Asp Lys Thr Thr Val Ser His Asn Thr Lys Arg Phe
 25 30 35
 Arg Phe Ala Leu Pro Thr Ala His His Thr Leu Gly Leu Pro Val Gly
 40 45 50
 55 Lys His Ile Tyr Leu Ser Thr Arg Ile Asp Gly Ser Leu Val Ile Arg
 55 60 65 70
 Pro Tyr Thr Pro Val Thr Ser Asp Glu Asp Gln Gly Tyr Val Asp Leu
 75 80 85
 Val Ile Lys Val Tyr Leu Lys Gly Val His Pro Lys Phe Pro Glu Gly
 60 90 95 100
 Gly Lys Met Ser Gln Tyr Leu Asp Ser Leu Lys Val Gly Asp Val Val
 105 110 115
 Glu Phe Arg Gly Pro Ser Gly Leu Leu Thr Tyr Thr Gly Lys Gly His


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      120      125      130
Phe Asn Ile Gln Pro Asn Lys Lys Ser Pro Pro Glu Pro Arg Val Ala
135      140      145      150
Lys Lys Leu Gly Met Ile Ala Gly Gly Thr Gly Ile Thr Pro Met Leu
5
Gln Leu Ile Arg Ala Ile Leu Lys Val Pro Glu Asp Pro Thr Gln Cys
      155      160      165
      170      175      180
Phe Leu Leu Phe Ala Asn Gln Thr Glu Lys Asp Ile Ile Leu Arg Glu
      185      190      195
10 Asp Leu Glu Glu Leu Gln Ala Arg Tyr Pro Asn Arg Phe Lys Leu Trp
      200      205      210
Phe Thr Leu Asp His Pro Pro Lys Asp Trp Ala Tyr Ser Lys Gly Phe
215      220      225      230
Val Thr Ala Asp Met Ile Arg Glu His Leu Pro Ala Pro Gly Asp Asp
15
Val Leu Val Leu Leu Cys Gly Pro Pro Pro Met Val Gln Leu Ala Cys
      235      240      245
      250      255      260
His Pro Asn Leu Asp Lys Leu Gly Tyr Ser Gln Lys Met Arg Phe Thr
      265      270      275
20 Tyr

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25 <213> Homo sapiens

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Met Gly Thr Gln Glu Gly Trp Cys Leu Leu Leu Cys Leu Ala Leu Ser
      -20      -15      -10
Gly Ala Ala Glu Thr Lys Pro His Pro Ala Glu Gly Gln Leu Arg Ala
40
Val Asp Val Val Leu Asp Cys Phe Leu Ala Lys Asp Gly Ala His Arg
      15      20      25
Gly Ala Leu Ala Ser Ser Glu Asp Arg Ala Arg Ala Ser Leu Val Leu
      30      35      40
45 Lys Gln Val Pro Val Leu Asp Asp Gly Ser Leu Glu Asp Phe Thr Asp
      45      50      55
Phe Gln Gly Gly Thr Leu Ala Gln Asp Asp Pro Pro Ile Ile Phe Glu
60
Ala Ser Val Asp Leu Val Gln Ile Pro Gln Ala Glu Ala Leu Leu His
50
Ala Asp Cys Ser Gly Lys Glu Val Thr Cys Glu Ile Ser Arg Tyr Phe
      95      100      105
Leu Gln Met Thr Glu Thr Thr Val Lys Thr Ala Ala Trp Phe Met Ala
      110      115      120
55 Asn Met Gln Val Ser Gly Gly Gly Xaa Ser Ile Ser Leu Val Met Lys
      125      130      135
Thr Pro Arg Val Thr Lys Asn Glu Ala Leu Trp His Pro Thr Leu Asn
140
Leu Pro Leu Ser Pro Gln Gly Thr Val Arg Thr Ala Val Glu Phe Gln
60
Val Met Thr Gln Thr Gln Ser Leu Ser Phe Leu Leu Gly Ser Ser Ala
      160      165      170
      175      180      185
Ser Leu Asp Cys Gly Phe Ser Met Ala Pro Gly Leu Asp Leu Ile Ser

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		190				195			200							
	Val	Glu	Trp	Arg	Leu	Gln	His	Lys	Gly	Arg	Gly	Gln	Leu	Val	Tyr	Ser
		205					210					215				
	Trp	Thr	Ala	Gly	Gln	Gly	Gln	Ala	Val	Arg	Lys	Gly	Ala	Thr	Leu	Glu
5	220					225					230				235	
	Pro	Ala	Gln	Leu	Gly	Met	Ala	Arg	Asp	Ala	Ser	Leu	Thr	Leu	Pro	Gly
					240				245						250	
	Leu	Thr	Ile	Gln	Asp	Glu	Gly	Thr	Tyr	Ile	Cys	Gln	Ile	Thr	Thr	Ser
				255					260					265		
10	Leu	Tyr	Arg	Ala	Gln	Gln	Ile	Ile	Gln	Leu	Asn	Ile	Gln	Ala	Ser	Pro
		270						275					280			
	Lys	Val	Arg	Leu	Ser	Leu	Ala	Asn	Glu	Ala	Leu	Leu	Pro	Thr	Leu	Ile
		285						290					295			
	Cys	Asp	Ile	Ala	Gly	Tyr	Tyr	Pro	Leu	Asp	Val	Val	Val	Thr	Trp	Thr
15	300					305					310				315	
	Arg	Glu	Glu	Leu	Gly	Gly	Ser	Pro	Ala	Gln	Val	Ser	Gly	Ala	Ser	Phe
					320					325					330	
	Ser	Ser	Leu	Arg	Gln	Ser	Val	Ala	Gly	Thr	Tyr	Ser	Ile	Ser	Ser	Ser
				335					340					345		
20	Leu	Thr	Ala	Glu	Pro	Gly	Ser	Ala	Gly	Ala	Thr	Tyr	Thr	Cys	Gln	Val
		350						355					360			
	Thr	His	Ile	Ser	Leu	Glu	Glu	Pro	Leu	Gly	Ala	Ser	Thr	Gln	Val	Val
		365					370					375				
	Pro	Pro	Glu	Arg	Arg	Thr	Ala	Leu	Gly	Val	Ile	Phe	Ala	Ser	Ser	Leu
25	380					385					390				395	
	Phe	Leu	Leu	Ala	Leu	Met	Phe	Leu	Gly	Leu	Gln	Arg	Arg	Gln	Ala	Pro
					400					405					410	
	Thr	Gly	Leu	Gly	Leu	Leu	Gln	Ala	Glu	Arg						
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	Asp	Tyr	Ala	Ser	Trp	Gly	Ile	Arg	Ser	Thr	Leu	Met	Val	Ala	Gly	Phe
			-30					-25					-20			
45	Val	Phe	Tyr	Leu	Gly	Val	Phe	Val	Val	Cys	His	Gln	Leu	Ser	Ser	Ser
		-15				-10						-5				
	Leu	Asn	Ala	Thr	Tyr	Arg	Ser	Leu	Val	Ala	Arg	Glu	Lys	Val	Phe	Trp
	1			5					10					15		
	Asp	Leu	Ala	Ala	Thr	Arg	Ala	Val	Phe	Gly	Val	Gln	Ser	Thr	Ala	Ala
50				20					25					30		
	Gly	Leu	Trp	Ala	Leu	Leu	Gly	Asp	Pro	Val	Leu	His	Ala	Asp	Lys	Ala
			35				40					45				
	Arg	Gly	Gln	Gln	Asn	Trp	Cys	Trp	Phe	His	Ile	Thr	Thr	Ala	Thr	Gly
		50				55						60				
55	Phe	Phe	Cys	Phe	Glu	Asn	Val	Ala	Val	His	Leu	Ser	Asn	Leu	Ile	Phe
	65				70					75				80		
	Arg	Thr	Phe	Asp	Leu	Phe	Leu	Val	Ile	His	His	Leu	Phe	Ala	Phe	Leu
				85					90					95		
	Gly	Phe	Leu	Gly	Cys	Leu	Val	Asn	Leu	Gln	Ala	Gly	His	Tyr	Leu	Ala
60				100				105					110			
	Met	Thr	Thr	Leu	Leu	Leu	Glu	Met	Ser	Thr	Pro	Phe	Thr	Cys	Val	Ser
				115				120					125			
	Trp	Met	Leu	Leu	Lys	Ala	Gly	Trp	Ser	Glu	Ser	Leu	Phe	Trp	Lys	Leu

	130		135		140												
	Asn	Gln	Trp	Leu	Met	Ile	His	Met	Phe	His	Cys	Arg	Met	Val	Leu	Thr	
	145					150					155					160	
5	Tyr	His	Met	Trp	Trp	Val	Cys	Phe	Trp	His	Trp	Asp	Gly	Leu	Val	Ser	
					165					170						175	
	Ser	Leu	Tyr	Leu	Pro	His	Leu	Thr	Leu	Phe	Leu	Val	Gly	Leu	Ala	Leu	
				180					185						190		
	Leu	Thr	Leu	Ile	Ile	Asn	Pro	Tyr	Trp	Thr	His	Lys	Lys	Thr	Gln	Gln	
				195				200					205				
10	Leu	Leu	Asn	Pro	Val	Asp	Trp	Asn	Phe	Ala	Gln	Pro	Glu	Ala	Lys	Ser	
		210					215					220					
	Arg	Pro	Glu	Gly	Asn	Gly	Gln	Leu	Leu	Arg	Lys	Lys	Arg	Pro			
	225					230					235						
15	<210> 288																
	<211> 398																
	<212> PRT																
	<213> Homo sapiens																
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25	Met	Val	Asn	Asp	Pro	Pro	Val	Pro	Ala	Leu	Leu	Trp	Ala	Gln	Glu	Val	
		-20					-15					-10					
	Gly	Gln	Val	Leu	Ala	Gly	Arg	Ala	Arg	Arg	Leu	Leu	Leu	Gln	Phe	Gly	
	-5					1				5					10		
	Val	Leu	Phe	Cys	Thr	Ile	Leu	Leu	Leu	Leu	Trp	Val	Ser	Val	Phe	Leu	
30				15					20					25			
	Tyr	Gly	Ser	Phe	Tyr	Tyr	Ser	Tyr	Met	Pro	Thr	Val	Ser	His	Leu	Ser	
		30						35					40				
	Pro	Val	His	Phe	Tyr	Tyr	Arg	Thr	Asp	Cys	Asp	Ser	Ser	Thr	Thr	Ser	
		45					50					55					
35	Leu	Cys	Ser	Phe	Pro	Val	Ala	Asn	Val	Ser	Leu	Thr	Lys	Gly	Gly	Arg	
	60					65					70					75	
	Asp	Arg	Val	Leu	Met	Tyr	Gly	Gln	Pro	Tyr	Arg	Val	Thr	Leu	Glu	Leu	
					80					85					90		
	Glu	Leu	Pro	Glu	Ser	Pro	Val	Asn	Gln	Asp	Leu	Gly	Met	Phe	Leu	Val	
40				95					100					105			
	Thr	Ile	Ser	Cys	Tyr	Thr	Arg	Gly	Gly	Arg	Ile	Ile	Ser	Thr	Ser	Ser	
		110						115					120				
	Arg	Ser	Val	Met	Leu	His	Tyr	Arg	Ser	Asp	Leu	Leu	Gln	Met	Leu	Asp	
		125					130						135				
45	Thr	Leu	Val	Phe	Ser	Ser	Leu	Leu	Leu	Phe	Gly	Phe	Ala	Glu	Gln	Lys	
	140						145				150					155	
	Gln	Leu	Leu	Glu	Val	Glu	Leu	Tyr	Ala	Asp	Tyr	Arg	Glu	Asn	Ser	Tyr	
					160					165						170	
	Val	Pro	Thr	Thr	Gly	Ala	Ile	Ile	Glu	Ile	His	Ser	Lys	Arg	Ile	Gln	
50				175					180					185			
	Leu	Tyr	Gly	Ala	Tyr	Leu	Arg	Ile	His	Ala	His	Phe	Thr	Gly	Leu	Arg	
		190						195					200				
	Tyr	Leu	Leu	Tyr	Asn	Phe	Pro	Met	Thr	Cys	Ala	Phe	Ile	Gly	Val	Ala	
		205					210					215					
55	Ser	Asn	Phe	Thr	Phe	Leu	Ser	Val	Ile	Val	Leu	Phe	Ser	Tyr	Met	Gln	
	220						225					230				235	
	Trp	Val	Trp	Gly	Gly	Ile	Trp	Pro	Arg	His	Arg	Phe	Ser	Leu	Gln	Val	
					240					245						250	
	Asn	Ile	Arg	Lys	Arg	Asp	Asn	Ser	Arg	Lys	Glu	Val	Gln	Arg	Arg	Ile	
60				255					260					265			
	Ser	Ala	His	Gln	Pro	Gly	Pro	Glu	Gly	Gln	Glu	Glu	Ser	Thr	Pro	Gln	
			270					275					280				
	Ser	Asp	Val	Thr	Glu	Asp	Gly	Glu	Ser	Pro	Glu	Asp	Pro	Ser	Gly	Thr	

285 290 295
 Glu Gly Gln Leu Ser Glu Glu Glu Lys Pro Asp Gln Gln Pro Leu Ser
 300 305 310 315
 Gly Glu Glu Glu Leu Glu Pro Glu Ala Ser Asp Gly Ser Gly Ser Trp
 5 320 325 330
 Glu Asp Ala Ala Leu Leu Thr Glu Ala Asn Leu Pro Ala Pro Ala Pro
 335 340 345
 Ala Ser Ala Ser Ala Pro Val Leu Glu Thr Leu Gly Ser Ser Glu Pro
 350 355 360
 10 Ala Gly Gly Ala Leu Arg Gln Arg Pro Thr Cys Ser Ser Ser
 365 370 375

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 15 <212> PRT
 <213> Homo sapiens

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 20 <222> -20...-1

<400> 289
 Met Arg Gln Lys Ala Val Ser Leu Phe Phe Cys Tyr Leu Leu Leu Phe
 -20 -15 -10 -5
 25 Thr Cys Ser Gly Val Glu Ala Gly Lys Lys Lys Cys Ser Glu Ser Ser
 1 5 10
 Asp Ser Gly Ser Gly Phe Trp Lys Ala Leu Thr Phe Met Ala Val Gly
 15 20 25
 Gly Gly Leu Ala Val Ala Gly Leu Pro Ala Leu Gly Phe Thr Gly Ala
 30 30 35 40
 Gly Ile Ala Ala Asn Ser Val Ala Ala Ser Leu Met Ser Trp Ser Ala
 45 50 55 60
 Ile Leu Asn Gly Gly Gly Val Pro Ala Gly Gly Leu Val Ala Thr Leu
 65 70 75
 35 Gln Ser Leu Gly Ala Gly Gly Ser Ser Val Val Ile Gly Asn Ile Gly
 80 85 90
 Ala Leu Met Gly Tyr Ala Thr His Lys Tyr Leu Asp Ser Glu Glu Asp
 95 100 105
 Glu Glu
 40 110

<210> 290
 <211> 86
 <212> PRT
 45 <213> Homo sapiens

<220>
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 <222> -20...-1

50
 <400> 290
 Met Ala Val Gly Gly Gly Leu Ala Val Ala Gly Leu Pro Ala Leu Gly
 -20 -15 -10 -5
 Phe Thr Gly Ala Gly Ile Ala Ala Asn Ser Val Ala Ala Ser Leu Met
 55 1 5 10
 Ser Trp Ser Ala Ile Leu Asn Gly Gly Gly Val Pro Ala Gly Gly Leu
 15 20 25
 Val Ala Thr Leu Gln Ser Leu Gly Ala Gly Gly Ser Ser Val Val Ile
 30 35 40
 60 Gly Asn Ile Gly Ala Leu Met Gly Tyr Ala Thr His Lys Tyr Leu Asp
 45 50 55 60
 Ser Glu Glu Asp Glu Glu
 65

<210> 291
 <211> 207
 <212> PRT
 5 <213> Homo sapiens

 <220>
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 <222> -23...-1
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 Met Ala Pro Phe Glu Pro Leu Ala Ser Gly Ile Leu Leu Leu Leu Trp
 -20 -15 -10
 Leu Ile Ala Pro Ser Arg Ala Cys Thr Cys Val Pro Pro His Pro Gln
 15 -5 1 5
 Thr Ala Phe Cys Asn Ser Asp Leu Val Ile Arg Ala Lys Phe Val Gly
 10 15 20 25
 Thr Pro Glu Val Asn Gln Thr Thr Leu Tyr Gln Arg Tyr Glu Ile Lys
 30 35 40
 20 Met Thr Lys Met Tyr Lys Gly Phe Gln Ala Leu Gly Asp Ala Ala Asp
 45 50 55
 Ile Arg Phe Val Tyr Thr Pro Ala Met Glu Ser Val Cys Gly Tyr Phe
 60 65 70
 His Arg Ser His Asn Arg Ser Glu Glu Phe Leu Ile Ala Gly Lys Leu
 25 75 80 85
 Gln Asp Gly Leu Leu His Ile Thr Thr Cys Ser Phe Val Ala Pro Trp
 90 95 100 105
 Asn Ser Leu Ser Leu Ala Gln Arg Arg Gly Phe Thr Lys Thr Tyr Thr
 110 115 120
 30 Val Gly Cys Glu Glu Cys Thr Val Phe Pro Cys Leu Ser Phe Pro Cys
 125 130 135
 Lys Leu Gln Ser Gly Thr His Cys Leu Trp Thr Asp Gln Leu Leu Gln
 140 145 150
 Gly Ser Glu Lys Gly Phe Gln Ser Arg His Leu Ala Cys Leu Pro Arg
 35 155 160 165
 Glu Pro Gly Leu Cys Thr Trp Gln Ser Leu Arg Ser Gln Ile Ala
 170 175 180

 <210> 292
 40 <211> 111
 <212> PRT
 <213> Homo sapiens

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 45 <221> SIGNAL
 <222> -24...-1

 <400> 292
 Met Lys Tyr Asp Cys Pro Phe Ser Gly Thr Ser Phe Val Val Phe Ser
 50 -20 -15 -10
 Leu Phe Leu Ile Cys Ala Met Ala Gly Asp Val Val Tyr Ala Asp Ile
 -5 1 5
 Lys Thr Val Arg Thr Ser Pro Leu Glu Leu Ala Phe Pro Leu Gln Arg
 10 15 20
 55 Ser Val Ser Phe Asn Phe Ser Thr Val His Lys Ser Cys Pro Ala Lys
 25 30 35 40
 Asp Trp Lys Val His Lys Gly Lys Cys Tyr Trp Ile Ala Glu Thr Lys
 45 50 55
 Lys Ser Trp Asn Lys Ser Gln Asn Asp Cys Ala Ile Asn Asn Ser Tyr
 60 60 65 70
 Leu Met Val Ile Gln Asp Ile Thr Ala Met Val Arg Phe Asn Ile
 75 80 85

<210> 293
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 <212> PRT
 <213> Homo sapiens

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<220>
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 <222> -15...-1

10 <400> 293

Met	Glu	Ala	Val	Val	Phe	Val	Phe	Ser	Leu	Leu	Asp	Cys	Cys	Ala	Leu
-15					-10				-5						1
Ile	Phe	Leu	Ser	Val	Tyr	Phe	Ile	Ile	Thr	Leu	Ser	Asp	Leu	Glu	Cys
		5						10					15		
15	Asp	Tyr	Ile	Asn	Ala	Arg	Ser	Cys	Ser	Lys	Leu	Asn	Lys	Trp	Val
		20						25				30			
	Ile	Pro	Glu	Leu	Ile	Gly	His	Thr	Ile	Val	Thr	Val	Leu	Leu	Met
		35				40					45				
	Ser	Leu	His	Trp	Phe	Ile	Phe	Leu	Leu	Asn	Leu	Pro	Val	Ala	Thr
20	50					55				60					65
	Asn	Ile	Tyr	Arg	Tyr	Ile	Met	Val	Pro	Ser	Gly	Asn	Met	Gly	Val
				70					75					80	
	Asp	Pro	Thr	Glu	Ile	His	Asn	Arg	Gly	Gln	Leu	Lys	Ser	His	Met
			85					90					95		Lys
25	Glu	Ala	Met	Ile	Lys	Leu	Gly	Phe	His	Leu	Leu	Cys	Phe	Phe	Met
		100						105					110		Tyr
	Leu	Tyr	Ser	Met	Ile	Leu	Ala	Leu	Ile	Asn	Asp				
		115					120								

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 <211> 160
 <212> PRT
 <213> Homo sapiens

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 <222> -27...-1

40 <400> 294

Met	Gln	Arg	Val	Ser	Gly	Leu	Leu	Ser	Trp	Thr	Leu	Ser	Arg	Val	Leu
		-25				-20					-15				
	Trp	Leu	Ser	Gly	Leu	Ser	Glu	Pro	Gly	Ala	Ala	Arg	Gln	Pro	Arg
		-10				-5				1					5
	Met	Glu	Glu	Lys	Ala	Leu	Glu	Val	Tyr	Asp	Leu	Ile	Arg	Thr	Ile
45				10					15					20	Arg
	Asp	Pro	Glu	Lys	Pro	Asn	Thr	Leu	Glu	Glu	Leu	Glu	Val	Val	Ser
			25					30					35		Glu
	Ser	Cys	Val	Glu	Val	Gln	Glu	Ile	Asn	Glu	Glu	Glu	Tyr	Leu	Val
		40					45					50			Ile
50	Ile	Arg	Phe	Thr	Pro	Thr	Val	Pro	His	Cys	Ser	Leu	Ala	Thr	Leu
		55				60						65			Ile
	Gly	Leu	Cys	Leu	Arg	Val	Lys	Leu	Gln	Arg	Cys	Leu	Pro	Phe	Lys
		70			75					80					85
	Lys	Leu	Glu	Ile	Tyr	Ile	Ser	Glu	Gly	Thr	His	Ser	Thr	Glu	Glu
55				90					95					100	Asp
	Ile	Asn	Lys	Gln	Ile	Asn	Asp	Lys	Glu	Arg	Val	Ala	Ala	Ala	Met
			105					110					115		Glu
	Asn	Pro	Asn	Leu	Arg	Glu	Ile	Val	Glu	Gln	Cys	Val	Leu	Glu	Pro
			120				125						130		Asp

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 <211> 181
 <212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

5 <222> -16...-1

<400> 295

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Met  Pro  Pro  Phe  Leu  Leu  Leu  Thr  Cys  Leu  Phe  Ile  Thr  Gly  Thr  Ser
    -15                -10                -5
10 Val  Ser  Pro  Val  Ala  Leu  Asp  Pro  Cys  Ser  Ala  Tyr  Ile  Ser  Leu  Asn
    1              5              10              15
    Glu  Pro  Trp  Arg  Asn  Thr  Asp  His  Gln  Leu  Asp  Glu  Ser  Gln  Gly  Pro
                20              25              30
15 Pro  Leu  Cys  Asp  Asn  His  Val  Asn  Gly  Glu  Trp  Tyr  His  Phe  Thr  Gly
    35              40              45
    Met  Ala  Gly  Asp  Ala  Met  Pro  Thr  Phe  Cys  Ile  Pro  Glu  Asn  His  Cys
    50              55              60
    Gly  Thr  His  Ala  Pro  Val  Trp  Leu  Asn  Gly  Ser  His  Pro  Leu  Glu  Gly
    65              70              75              80
20 Asp  Gly  Ile  Val  Gln  Arg  Gln  Ala  Cys  Ala  Ser  Phe  Asn  Gly  Asn  Cys
                85              90              95
    Cys  Leu  Trp  Asn  Thr  Thr  Val  Glu  Val  Lys  Ala  Cys  Pro  Gly  Gly  Tyr
                100             105             110
    Tyr  Val  Tyr  Arg  Leu  Thr  Lys  Pro  Ser  Val  Cys  Phe  His  Val  Tyr  Cys
    115             120             125
25 Gly  Arg  Glu  Tyr  Leu  Pro  Cys  Ala  Leu  Phe  Leu  His  Gln  Gln  Gly  His
    130             135             140
    Arg  Trp  Ser  Pro  Lys  Val  Pro  Asn  Tyr  Arg  Ile  Cys  Ser  Tyr  Ser  Gly
    145             150             155             160
30 Asn  Tyr  Ile  Ser  Ile
                165

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<210> 296

<211> 247

35 <212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

40 <222> -18...-1

<400> 296

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Met  Gly  Leu  Pro  Gly  Leu  Phe  Cys  Leu  Ala  Val  Leu  Ala  Ala  Ser  Ser
    -15                -10                -5
45 Phe  Ser  Lys  Ala  Arg  Glu  Glu  Glu  Ile  Thr  Pro  Val  Val  Ser  Ile  Ala
    1              5              10
    Tyr  Lys  Val  Leu  Glu  Val  Phe  Pro  Lys  Gly  Arg  Trp  Val  Leu  Ile  Thr
    15              20              25              30
    Cys  Cys  Ala  Pro  Gln  Pro  Pro  Pro  Pro  Ile  Thr  Tyr  Ser  Leu  Cys  Gly
    35              40              45
50 Thr  Lys  Asn  Ile  Lys  Val  Ala  Lys  Lys  Val  Val  Lys  Thr  His  Glu  Pro
    50              55              60
    Ala  Ser  Phe  Asn  Leu  Asn  Val  Thr  Leu  Lys  Ser  Ser  Pro  Asp  Leu  Leu
    65              70              75
55 Thr  Tyr  Phe  Cys  Arg  Ala  Ser  Ser  Thr  Ser  Gly  Ala  His  Val  Asp  Ser
    80              85              90
    Ala  Arg  Leu  Gln  Met  His  Trp  Glu  Leu  Trp  Ser  Lys  Pro  Val  Ser  Glu
    95              100             105             110
    Leu  Arg  Ala  Asn  Phe  Thr  Leu  Gln  Asp  Arg  Gly  Ala  Gly  Pro  Arg  Val
    115             120             125
60 Glu  Met  Ile  Cys  Gln  Ala  Ser  Ser  Gly  Ser  Pro  Pro  Ile  Thr  Asn  Ser
    130             135             140
    Leu  Ile  Gly  Lys  Asp  Gly  Gln  Val  His  Leu  Gln  Gln  Arg  Pro  Cys  His

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145
 Arg Gln Pro Ala Asn Phe Ser Phe Leu Pro Ser Gln Thr Ser Asp Trp
 160 165 170
 Phe Trp Cys Gln Ala Ala Asn Asn Ala Asn Val Gln His Ser Ala Leu
 5 175 180 185 190
 Thr Val Val Pro Pro Gly Gly Leu Pro Arg Ala Pro Thr Ile Val Leu
 195 200 205
 Val Gly Ser Leu Ala Ser Thr Ala Ala Ile Thr Ser Arg Met Leu Gly
 210 215 220
 10 Trp Thr Thr Trp Ala Arg Trp
 225

<210> 297
 <211> 132
 15 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 20 <222> -41...-1

<400> 297
 Met Glu Gly Gly Ala Tyr Gly Ala Gly Lys Ala Gly Gly Ala Phe Asp
 -40 -35 -30
 25 Pro Tyr Thr Leu Val Arg Gln Pro His Thr Ile Leu Arg Val Val Ser
 -25 -20 -15 -10
 Trp Leu Phe Ser Ile Val Val Phe Gly Ser Ile Val Asn Glu Gly Tyr
 -5 1 5
 Leu Asn Ser Ala Ser Glu Gly Glu Gln Phe Cys Ile Tyr Asn Arg Asn
 30 10 15 20
 Pro Asn Ala Cys Ser Tyr Gly Val Ala Val Gly Val Leu Ala Phe Leu
 25 30 35
 Thr Cys Leu Leu Tyr Leu Ala Leu Asp Val Tyr Phe Pro Gln Ile Ser
 40 45 50 55
 35 Ser Val Lys Asp Arg Lys Lys Ala Val Leu Ser Asp Ile Gly Val Ser
 60 65 70
 Gly Glu Pro His Pro Ala Gly Thr Pro Cys Thr Glu Ser Thr Glu Gly
 75 80 85
 Cys Pro Gly Pro
 40 90

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 <211> 251
 <212> PRT
 45 <213> Homo sapiens

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 <222> -24...-1

50
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 Met Leu Gly Ala Arg Leu Arg Leu Trp Val Cys Ala Leu Cys Ser Val
 -20 -15 -10
 Cys Ser Met Ser Val Leu Arg Ala Tyr Pro Asn Ala Ser Pro Leu Leu
 55 -5 1 5
 Gly Ser Ser Trp Gly Gly Leu Ile His Leu Tyr Thr Ala Thr Ala Arg
 10 15 20
 Asn Ser Tyr His Leu Gln Ile His Lys Asn Gly His Val Asp Gly Ala
 25 30 35 40
 60 Pro His Gln Thr Ile Tyr Ser Ala Leu Met Ile Arg Ser Glu Asp Ala
 45 50 55
 Gly Phe Val Val Ile Thr Gly Val Met Ser Arg Arg Tyr Leu Cys Met
 60 65 70

Asp Phe Arg Gly Asn Ile Phe Gly Ser His Tyr Phe Asp Pro Glu Asn
 75 80 85
 Cys Arg Phe Gln His Gln Thr Leu Glu Asn Gly Tyr Asp Val Tyr His
 90 95 100
 5 Ser Pro Gln Tyr His Phe Leu Val Ser Leu Gly Arg Ala Lys Arg Ala
 105 110 115 120
 Phe Leu Pro Gly Met Asn Pro Pro Pro Tyr Ser Gln Phe Leu Ser Arg
 125 130 135
 10 Arg Asn Glu Ile Pro Leu Ile His Phe Asn Thr Pro Ile Pro Arg Arg
 140 145 150
 His Thr Arg Ser Ala Glu Asp Asp Ser Glu Arg Asp Pro Leu Asn Val
 155 160 165
 Leu Lys Pro Arg Ala Arg Met Thr Pro Ala Pro Ala Ser Cys Ser Gln
 170 175 180
 15 Glu Leu Pro Ser Ala Glu Asp Asn Ser Pro Met Ala Ser Asp Pro Leu
 185 190 195 200
 Gly Val Val Arg Gly Gly Arg Val Asn Thr His Ala Gly Gly Thr Gly
 205 210 215
 Pro Glu Gly Cys Arg Pro Phe Ala Lys Phe Ile
 20 220 225

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 <211> 137
 <212> PRT
 25 <213> Homo sapiens

 <220>
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 <222> -22...-1
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 Met Leu Ser Gly Arg Leu Val Leu Gly Leu Val Ser Met Ala Gly Arg
 -20 -15 -10
 35 Val Cys Leu Cys Gln Gly Ser Ala Gly Ser Gly Ala Ile Gly Pro Val
 -5 1 5 10
 Glu Ala Ala Ile Arg Thr Lys Leu Glu Glu Ala Leu Ser Pro Glu Val
 15 20 25
 Leu Glu Leu Arg Asn Glu Ser Gly Gly His Ala Val Pro Pro Gly Ser
 30 35 40
 40 Glu Thr His Phe Arg Val Ala Val Val Ser Ser Arg Phe Glu Gly Leu
 45 50 55
 Ser Pro Leu Gln Arg His Arg Leu Val His Ala Ala Leu Ala Glu Glu
 60 65 70
 Leu Gly Gly Pro Val His Ala Leu Ala Ile Gln Ala Arg Thr Pro Ala
 45 75 80 85 90
 Gln Trp Arg Glu Asn Ser Gln Leu Asp Thr Ser Pro Pro Cys Leu Gly
 95 100 105
 Gly Asn Lys Lys Thr Leu Gly Thr Pro
 110 115
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 <211> 541
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 <213> Homo sapiens
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 <222> -28...-1
 60
 <400> 300
 Met Gly Ser Gln Glu Val Leu Gly His Ala Ala Arg Leu Ala Ser Ser
 -25 -20 -15
 Gly Leu Leu Leu Gln Val Leu Phe Arg Leu Ile Thr Phe Val Leu Asn

				-10												
	Ala	Phe	Ile	Leu	Arg	Phe	Leu	Ser	Lys	Glu	Ile	Val	Gly	Val	Val	Asn
	5					10					15					20
5	Val	Arg	Leu	Thr	Leu	Leu	Tyr	Ser	Thr	Thr	Leu	Phe	Leu	Ala	Arg	Glu
					25					30					35	
	Ala	Phe	Arg	Arg	Ala	Cys	Leu	Ser	Gly	Gly	Thr	Gln	Arg	Asp	Trp	Ser
				40					45					50		
	Gln	Thr	Leu	Asn	Leu	Leu	Trp	Leu	Thr	Val	Pro	Leu	Gly	Val	Phe	Trp
			55					60					65			
10	Ser	Leu	Phe	Leu	Gly	Trp	Ile	Trp	Leu	Gln	Leu	Leu	Glu	Val	Pro	Asp
		70					75					80				
	Pro	Asn	Val	Val	Pro	His	Tyr	Ala	Thr	Gly	Val	Val	Leu	Phe	Gly	Leu
	85					90					95					100
15	Ser	Ala	Val	Val	Glu	Leu	Leu	Gly	Glu	Pro	Phe	Trp	Val	Leu	Ala	Gln
					105					110					115	
	Ala	His	Met	Phe	Val	Lys	Leu	Lys	Val	Ile	Ala	Glu	Ser	Leu	Ser	Val
				120					125					130		
	Ile	Leu	Lys	Ser	Val	Leu	Thr	Ala	Phe	Leu	Val	Leu	Trp	Leu	Pro	His
			135					140					145			
20	Trp	Gly	Leu	Tyr	Ile	Phe	Ser	Leu	Ala	Gln	Leu	Phe	Tyr	Thr	Thr	Val
		150					155					160				
	Leu	Val	Leu	Cys	Tyr	Val	Ile	Tyr	Phe	Thr	Lys	Leu	Leu	Gly	Ser	Pro
	165					170					175					180
25	Glu	Ser	Thr	Lys	Leu	Gln	Thr	Leu	Pro	Val	Ser	Arg	Ile	Thr	Asp	Leu
					185					190					195	
	Leu	Pro	Asn	Ile	Thr	Arg	Asn	Gly	Ala	Phe	Ile	Asn	Trp	Lys	Glu	Ala
				200					205					210		
	Lys	Leu	Thr	Trp	Ser	Phe	Phe	Lys	Gln	Ser	Phe	Leu	Lys	Gln	Ile	Leu
			215					220					225			
30	Thr	Glu	Gly	Glu	Arg	Tyr	Val	Met	Thr	Phe	Leu	Asn	Val	Leu	Asn	Phe
		230					235					240				
	Gly	Asp	Gln	Gly	Val	Tyr	Asp	Ile	Val	Asn	Asn	Leu	Gly	Ser	Leu	Val
	245					250					255					260
35	Ala	Arg	Leu	Ile	Phe	Gln	Pro	Ile	Glu	Glu	Ser	Phe	Tyr	Ile	Phe	Phe
					265					270					275	
	Ala	Lys	Val	Leu	Glu	Arg	Gly	Lys	Asp	Ala	Thr	Leu	Gln	Lys	Gln	Glu
				280					285					290		
	Asp	Val	Ala	Val	Ala	Ala	Ala	Val	Leu	Glu	Ser	Leu	Leu	Lys	Leu	Ala
			295					300					305			
40	Leu	Leu	Ala	Gly	Leu	Thr	Ile	Thr	Val	Phe	Gly	Phe	Ala	Tyr	Ser	Gln
		310					315					320				
	Leu	Ala	Leu	Asp	Ile	Tyr	Gly	Gly	Thr	Met	Leu	Ser	Ser	Gly	Ser	Gly
	325					330					335					340
45	Pro	Val	Leu	Leu	Arg	Ser	Tyr	Cys	Leu	Tyr	Val	Leu	Leu	Leu	Ala	Ile
					345					350					355	
	Asn	Gly	Val	Thr	Glu	Cys	Leu	Thr	Phe	Ala	Ala	Met	Ser	Lys	Glu	Glu
				360					365					370		
	Val	Asp	Arg	Tyr	Asn	Phe	Val	Met	Leu	Ala	Leu	Ser	Ser	Ser	Phe	Leu
			375					380					385			
50	Val	Leu	Ser	Tyr	Leu	Leu	Thr	Arg	Trp	Cys	Gly	Ser	Val	Gly	Phe	Ile
		390					395					400				
	Leu	Ala	Asn	Cys	Phe	Asn	Met	Gly	Ile	Arg	Ile	Thr	Gln	Ser	Leu	Cys
	405					410					415					420
55	Phe	Ile	His	Arg	Tyr	Tyr	Arg	Arg	Ser	Pro	His	Arg	Pro	Leu	Ala	Gly
					425					430					435	
	Leu	His	Leu	Ser	Pro	Val	Leu	Leu	Gly	Thr	Phe	Ala	Leu	Ser	Gly	Gly
				440					445					450		
	Val	Thr	Ala	Val	Ser	Glu	Val	Phe	Leu	Cys	Cys	Asp	Gln	Gly	Trp	Pro
			455					460					465			
60	Ala	Arg	Leu	Ala	His	Ile	Ala	Val	Gly	Ala	Phe	Cys	Leu	Gly	Ala	Thr
		470					475					480				
	Leu	Gly	Thr	Ala	Phe	Leu	Thr	Glu	Thr	Lys	Leu	Ile	His	Phe	Leu	Arg
	485					490					495					500

Thr Gln Leu Gly Val Pro Arg Arg Thr Asp Lys Met Thr
505 510

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5 <211> 287
<212> PRT
<213> Homo sapiens

<220>
10 <221> SIGNAL
<222> -17...-1

<400> 301
15 Met Glu Leu Glu Arg Ile Val Ser Ala Ala Leu Leu Ala Phe Val Gln
-15 -10 -5
Thr His Leu Pro Glu Ala Asp Leu Ser Gly Leu Asp Glu Val Ile Phe
1 5 10 15
Ser Tyr Val Leu Gly Val Leu Glu Asp Leu Gly Pro Ser Gly Pro Ser
20 20 25 30
Glu Glu Asn Phe Asp Met Glu Ala Phe Thr Glu Met Met Glu Ala Tyr
35 40 45
Val Pro Gly Phe Ala His Ile Pro Arg Gly Thr Ile Gly Asp Met Met
50 55 60
Gln Lys Leu Ser Gly Gln Leu Ser Asp Ala Arg Asn Lys Glu Asn Leu
25 65 70 75
Gln Pro Gln Ser Ser Gly Val Gln Gly Gln Val Pro Ile Ser Pro Glu
80 85 90 95
Pro Leu Gln Arg Pro Glu Met Leu Lys Glu Thr Arg Ser Ser Ala
100 105 110
30 Ala Ala Ala Ala Asp Thr Gln Asp Glu Ala Thr Gly Ala Glu Glu
115 120 125
Leu Leu Pro Gly Val Asp Val Leu Leu Glu Val Phe Pro Thr Cys Ser
130 135 140
Val Glu Gln Ala Gln Trp Val Leu Ala Lys Ala Arg Gly Asp Leu Glu
35 145 150 155
Glu Ala Val Gln Met Leu Val Glu Gly Lys Glu Glu Gly Pro Ala Ala
160 165 170 175
Trp Glu Gly Pro Asn Gln Asp Leu Pro Arg Arg Leu Arg Gly Pro Gln
180 185 190
40 Lys Asp Glu Leu Lys Ser Phe Ile Leu Gln Lys Tyr Met Met Val Asp
195 200 205
Ser Ala Glu Asp Gln Lys Ile His Arg Pro Met Ala Pro Lys Glu Ala
210 215 220
Pro Lys Lys Leu Ile Arg Tyr Ile Asp Asn Gln Val Val Ser Thr Lys
45 225 230 235
Gly Glu Arg Phe Lys Asp Val Arg Asn Pro Glu Ala Glu Glu Met Lys
240 245 250 255
Ala Thr Tyr Ile Asn Leu Lys Pro Ala Arg Lys Tyr Arg Phe His
260 265 270

50
<210> 302
<211> 165
<212> PRT
<213> Homo sapiens

55
<220>
<221> SIGNAL
<222> -35...-1

60 <400> 302
Met Met Arg Cys Cys Arg Arg Arg Cys Cys Cys Arg Gln Pro Pro His
-35 -30 -25 -20
Ala Leu Arg Pro Leu Leu Leu Leu Pro Leu Val Leu Leu Pro Pro Leu

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      -15      -10      -5
Ala Ala Ala Ala Gly Pro Asn Arg Cys Asp Thr Ile Tyr Gln Gly
      1      5      10
5  Phe Ala Glu Cys Leu Ile Arg Leu Gly Asp Ser Met Gly Arg Gly Gly
    15      20      25
    Glu Leu Glu Thr Ile Cys Arg Ser Trp Asn Tyr Phe His Ala Cys Ala
    30      35      40      45
    Ser Gln Val Leu Ser Gly Cys Pro Glu Glu Ala Ala Ala Val Trp Glu
      50      55      60
10 Ser Leu Gln Gln Glu Ala Arg Gln Ala Pro Arg Pro Asn Asn Leu His
    65      70      75
    Thr Leu Cys Gly Ala Pro Val His Val Arg Glu Arg Gly Thr Gly Ser
      80      85      90
    Glu Thr Asn Gln Glu Thr Leu Arg Ala Thr Ala Pro Ala Leu Pro Met
    95      100      105
15 Ala Pro Ala Pro Pro Leu Leu Ala Ala Ala Leu Ala Leu Ala Tyr Leu
    110      115      120      125
    Leu Arg Pro Leu Ala
      130
20
    <210> 303
    <211> 148
    <212> PRT
    <213> Homo sapiens
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    <221> SIGNAL
    <222> -25...-1
30 <400> 303
    Met Ala Ser Val Val Leu Ala Leu Arg Thr Arg Thr Ala Val Thr Ser
    -25      -20      -15      -10
    Leu Leu Ser Pro Thr Pro Ala Thr Ala Leu Ala Val Arg Tyr Ala Ser
      -5      1      5
35 Lys Lys Ser Gly Gly Ser Ser Lys Asn Leu Gly Gly Lys Ser Ser Gly
    10      15      20
    Arg Arg Gln Gly Ile Lys Lys Met Glu Gly His Tyr Val His Ala Gly
    25      30      35
    Asn Ile Ile Ala Thr Gln Arg His Phe Arg Trp His Pro Gly Ala His
    40 40      45      50      55
    Val Gly Val Gly Lys Asn Lys Cys Leu Tyr Ala Leu Glu Glu Gly Ile
      60      65      70
    Val Arg Tyr Thr Lys Glu Val Tyr Val Pro His Pro Arg Asn Thr Glu
      75      80      85
45 Ala Val Asp Leu Ile Thr Arg Leu Pro Lys Gly Ala Val Leu Tyr Lys
    90      95      100
    Thr Phe Val His Val Val Pro Ala Lys Pro Glu Gly Thr Phe Lys Leu
    105      110      115
    Val Ala Met Leu
50 120
    <210> 304
    <211> 291
    <212> PRT
55 <213> Homo sapiens
    <220>
    <221> SIGNAL
    <222> -34...-1
60
    <400> 304
    Met Glu Ser Glu Arg Ser Lys Arg Met Gly Asn Ala Cys Ile Pro Leu
      -30      -25      -20

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278

<220>
 <221> SIGNAL
 <222> -30...-1
 5
 <400> 306
 Met Ala Ala Thr Ser Gly Thr Asp Glu Pro Val Ser Gly Glu Leu Val
 -30 -25 -20 -15
 Ser Val Ala His Ala Leu Ser Leu Pro Ala Glu Ser Tyr Gly Asn Asp
 -10 -5 1
 10 Pro Asp Ile Glu Met Ala Trp Ala Met Arg Ala Met Gln His Ala Glu
 5 10 15
 Val Tyr Tyr Lys Leu Ile Ser Ser Val Asp Pro Gln Phe Leu Lys Leu
 20 25 30
 15 Thr Lys Val Asp Asp Gln Ile Tyr Ser Glu Phe Arg Lys Asn Phe Glu
 35 40 45 50
 Thr Leu Arg Ile Asp Val Leu Asp Pro Glu Glu Leu Lys Ser Glu Ser
 55 60 65
 Ala Lys Glu Lys Trp Arg Pro Phe Cys Leu Lys Phe Asn Gly Ile Val
 70 75 80
 20 Glu Asp Phe Asn Tyr Gly Thr Leu Arg Leu Asp Cys Ser Gln Gly
 85 90 95
 Tyr Thr Glu Glu Asn Thr Ile Phe Ala Pro Arg Ile Gln Phe Phe Ala
 100 105 110
 25 Ile Glu Ile Ala Arg Asn Arg Glu Gly Tyr Asn Lys Ala Val Tyr Ile
 115 120 125 130
 Ser Val Gln Asp Lys Glu Gly Glu Lys Gly Val Asn Asn Gly Gly Glu
 135 140 145
 Lys Arg Ala Asp Ser Gly Glu Glu Glu Asn Thr Lys Asn Gly Gly Glu
 150 155 160
 30 Lys Gly Ala Asp Ser Gly Glu Glu Lys Glu Glu Gly Ile Asn Arg Glu
 165 170 175
 Asp Lys Thr Asp Lys Gly Gly Glu Lys Gly Lys Glu Ala Asp Lys Glu
 180 185 190
 35 Ile Asn Lys Ser Gly Glu Lys Ala Met
 195 200

 <210> 307
 <211> 85
 40 <212> PRT
 <213> Homo sapiens

 <220>
 <221> SIGNAL
 45 <222> -20...-1

 <400> 307
 Met Arg Gln Lys Ala Val Ser Leu Phe Leu Cys Tyr Leu Leu Leu Phe
 -20 -15 -10 -5
 50 Thr Cys Ser Gly Val Glu Ala Gly Lys Lys Lys Cys Ser Glu Ser Ser
 1 5 10
 Asp Ser Gly Ser Gly Phe Trp Lys Ala Leu Thr Phe Met Ala Val Gly
 15 20 25
 Gly Gly Leu Ala Val Ala Gly Leu Pro Ala Leu Gly Phe Thr Gly Ala
 30 35 40
 55 Gly Ile Ala Ala Asn Ser Val Ala Ala Ser Leu Met Ser Trp Ser Ala
 45 50 55 60
 Ile Leu Asn Gly Gly
 65
 60
 <210> 308
 <211> 105
 <212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

5 <222> -43...-1

<400> 308

Met Gly Phe Thr Gly Ala Gly Ile Ala Ala Ser Ser Ile Ala Ala Lys
 -40 -35 -30
 10 Met Met Ser Ala Ala Ala Ile Ala Asn Gly Gly Gly Val Ser Ala Gly
 -25 -20 -15
 Ser Leu Val Ala Thr Leu Gln Ser Val Gly Ala Ala Gly Leu Ser Thr
 -10 -5 1 5
 Ser Ser Asn Ile Leu Leu Ala Ser Val Gly Ser Val Leu Gly Ala Cys
 15 10 15 20
 Leu Gly Asn Ser Pro Ser Ser Ser Leu Pro Ala Glu Pro Glu Ala Lys
 25 30 35
 Glu Asp Glu Ala Arg Glu Asn Val Pro Gln Gly Glu Pro Pro Lys Pro
 40 45 50
 20 Pro Leu Lys Ser Glu Lys His Glu Glu
 55 60

<210> 309

<211> 291

25 <212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

30 <222> -34...-1

<400> 309

Met Glu Ser Glu Arg Ser Lys Arg Met Gly Asn Ala Cys Ile Pro Leu
 -30 -25 -20
 35 Lys Arg Ile Ala Tyr Phe Leu Cys Leu Leu Ser Ala Leu Leu Leu Thr
 -15 -10 -5
 Glu Gly Lys Lys Pro Ala Lys Pro Lys Cys Pro Ala Val Cys Thr Cys
 1 5 10
 Thr Lys Asp Asn Ala Leu Cys Glu Asn Ala Arg Ser Ile Pro Arg Thr
 40 15 20 25 30
 Val Pro Pro Asp Val Ile Ser Leu Ser Phe Val Arg Ser Val Phe Thr
 35 40 45
 Glu Ile Ser Glu Gly Ser Phe Leu Phe Thr Pro Ser Leu Gln Leu Leu
 50 55 60
 45 Leu Phe Thr Ser Asn Ser Phe Asp Val Ile Ser Asp Asp Ala Phe Ile
 65 70 75
 Gly Leu Pro His Leu Glu Tyr Leu Phe Ile Glu Asn Asn Ile Lys
 80 85 90
 Ser Ile Ser Arg His Thr Phe Arg Gly Leu Lys Ser Leu Ile His Leu
 50 95 100 105 110
 Ser Leu Ala Asn Asn Asn Leu Gln Thr Leu Pro Lys Asp Ile Phe Lys
 115 120 125
 Gly Leu Asp Ser Leu Thr Asn Val Asp Leu Arg Gly Asn Ser Phe Asn
 130 135 140
 55 Cys Asp Cys Lys Leu Lys Trp Leu Val Glu Trp Leu Gly His Thr Asn
 145 150 155
 Ala Thr Val Glu Asp Ile Tyr Cys Glu Gly Pro Pro Glu Tyr Lys Lys
 160 165 170
 Arg Lys Ile Asn Ser Leu Ser Ser Lys Asp Phe Asp Cys Ile Ile Thr
 60 175 180 185 190
 Glu Phe Ala Lys Ser Gln Asp Leu Pro Tyr Gln Ser Leu Ser Ile Asp
 195 200 205
 Thr Phe Ser Tyr Leu Asn Asp Glu Tyr Val Val Ile Ala Gln Pro Phe

210 215 220
 Thr Gly Lys Cys Ile Phe Leu Glu Trp Asp His Val Glu Lys Thr Phe
 225 230 235
 Arg Asn Tyr Asp Asn Ile Thr Val Leu Arg Glu Ile His Arg Phe Thr
 5 240 245 250
 Asn Met Ser
 255

 <210> 310
 10 <211> 426
 <212> PRT
 <213> Homo sapiens

 <220>
 15 <221> SIGNAL
 <222> -28..-1

 <400> 310
 20 Met Ser Pro Ala Phe Arg Ala Met Asp Val Glu Pro Arg Ala Lys Gly
 -25 -20 -15
 Val Leu Leu Glu Pro Phe Val His Gln Val Gly Gly His Ser Cys Val
 -10 -5 1
 Leu Arg Phe Asn Glu Thr Thr Leu Cys Lys Pro Leu Val Pro Arg Glu
 5 10 15 20
 25 His Gln Phe Tyr Glu Thr Leu Pro Ala Glu Met Arg Lys Phe Thr Pro
 25 30 35
 Gln Tyr Lys Gly Val Val Ser Val Arg Phe Glu Glu Asp Glu Asp Arg
 40 45 50
 Asn Leu Cys Leu Ile Ala Tyr Pro Leu Lys Gly Asp His Gly Ile Val
 30 55 60 65
 Asp Ile Val Asp Asn Ser Asp Cys Glu Pro Lys Ser Lys Leu Leu Arg
 70 75 80
 Trp Thr Thr Asn Lys Lys His His Val Leu Glu Thr Glu Lys Thr Pro
 85 90 95 100
 35 Lys Asp Trp Val Arg Gln His Arg Lys Glu Glu Lys Met Lys Ser His
 105 110 115
 Lys Leu Glu Glu Glu Phe Glu Trp Leu Lys Lys Ser Glu Val Leu Tyr
 120 125 130
 Tyr Thr Val Glu Lys Lys Gly Asn Ile Ser Ser Gln Leu Lys His Tyr
 40 135 140 145
 Asn Pro Trp Ser Met Lys Cys His Gln Gln Gln Leu Gln Arg Met Lys
 150 155 160
 Glu Asn Ala Lys His Arg Asn Gln Tyr Lys Phe Ile Leu Leu Glu Asn
 165 170 175 180
 45 Leu Thr Ser Arg Tyr Glu Val Pro Cys Val Leu Asp Leu Lys Met Gly
 185 190 195
 Thr Arg Gln His Gly Asp Asp Ala Ser Glu Glu Lys Ala Ala Asn Gln
 200 205 210
 Ile Arg Lys Cys Gln Gln Ser Thr Ser Ala Val Ile Gly Val Arg Val
 50 215 220 225
 Cys Gly Met Gln Val Tyr Gln Ala Gly Ser Gly Gln Leu Met Phe Met
 230 235 240
 Asn Lys Tyr His Gly Arg Lys Leu Ser Met Gln Gly Phe Lys Glu Ala
 245 250 255 260
 55 Leu Phe Gln Phe Phe His Asn Gly Arg Tyr Leu Arg Arg Glu Leu Leu
 265 270 275
 Gly Pro Val Leu Lys Lys Leu Thr Glu Leu Lys Ala Val Leu Glu Arg
 280 285 290
 Gln Glu Ser Tyr Arg Phe Tyr Ser Ser Ser Leu Leu Val Ile Tyr Asp
 60 295 300 305
 Gly Lys Glu Arg Pro Glu Val Val Leu Asp Ser Asp Ala Glu Asp Leu
 310 315 320
 Glu Asp Leu Ser Glu Glu Ser Ala Asp Glu Ser Ala Gly Ala Tyr Ala


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325          330          335          340
Tyr Lys Pro Ile Gly Ala Ser Ser Val Asp Val Arg Met Ile Asp Phe
          345          350          355
Ala His Thr Thr Cys Arg Leu Tyr Gly Glu Asp Thr Val Val His Glu
5          360          365          370
Gly Gln Asp Ala Gly Tyr Ile Phe Gly Leu Gln Ser Leu Ile Asp Ile
          375          380          385
Val Thr Glu Ile Ser Glu Glu Ser Gly Glu
          390          395

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<210> 311
<211> 466
<212> PRT
<213> Homo sapiens

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<220>
<221> SIGNAL
<222> -16...-1

20 <400> 311
Met Gly Leu Tyr Ala Ala Ala Ala Gly Val Leu Ala Gly Val Glu Ser
-15          -10          -5
Arg Gln Gly Ser Ile Lys Gly Leu Val Tyr Ser Ser Asn Phe Gln Asn
1          5          10          15
25 Val Lys Gln Leu Tyr Ala Leu Val Cys Glu Thr Gln Arg Tyr Ser Ala
          20          25          30
Val Leu Asp Ala Val Ile Ala Ser Ala Gly Leu Leu Arg Ala Glu Lys
          35          40          45
Lys Leu Arg Pro His Leu Ala Lys Val Leu Val Tyr Glu Leu Leu Leu
30          50          55          60
Gly Lys Gly Phe Arg Gly Gly Gly Gly Arg Trp Lys Ala Leu Leu Gly
65          70          75          80
Arg His Gln Ala Arg Leu Lys Ala Glu Leu Ala Arg Leu Lys Val His
          85          90          95
35 Arg Gly Val Ser Arg Asn Glu Asp Leu Leu Glu Val Gly Ser Arg Pro
          100          105          110
Gly Pro Ala Ser Gln Leu Pro Arg Phe Val Arg Val Asn Thr Leu Lys
          115          120          125
Thr Cys Ser Asp Asp Val Val Asp Tyr Phe Lys Arg Gln Gly Phe Ser
40          130          135          140
Tyr Gln Gly Arg Ala Ser Ser Leu Asp Asp Leu Arg Ala Leu Lys Gly
145          150          155          160
Lys His Phe Leu Leu Asp Pro Leu Met Pro Glu Leu Leu Val Phe Pro
          165          170          175
45 Ala Gln Thr Asp Leu His Glu His Pro Leu Tyr Arg Ala Gly His Leu
          180          185          190
Ile Leu Gln Asp Arg Ala Ser Cys Leu Pro Ala Met Leu Leu Asp Pro
          195          200          205
Pro Pro Gly Ser His Val Ile Asp Ala Cys Ala Ala Pro Gly Asn Lys
50          210          215          220
Thr Ser His Leu Ala Ala Leu Leu Lys Asn Gln Gly Lys Ile Phe Ala
225          230          235          240
Phe Asp Leu Asp Ala Lys Arg Leu Ala Ser Met Ala Thr Leu Leu Ala
          245          250          255
55 Arg Ala Gly Val Ser Cys Cys Glu Leu Ala Glu Glu Asp Phe Leu Ala
          260          265          270
Val Ser Pro Ser Asp Pro Arg Tyr His Glu Val His Tyr Ile Leu Leu
          275          280          285
Asp Pro Ser Cys Ser Gly Ser Gly Met Pro Ser Arg Gln Leu Glu Glu
60          290          295          300
Pro Gly Ala Gly Thr Pro Ser Pro Val Arg Leu His Ala Leu Ala Gly
305          310          315          320
Phe Gln Gln Arg Ala Leu Cys His Ala Leu Thr Phe Pro Ser Leu Gln

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325 330 335
 Arg Leu Val Tyr Ser Thr Cys Ser Leu Cys Gln Glu Glu Asn Glu Asp
 340 345 350
 Val Val Arg Asp Ala Leu Gln Gln Asn Pro Gly Ala Phe Arg Leu Ala
 355 360 365
 5 Pro Ala Leu Pro Ala Trp Pro His Arg Gly Leu Ser Thr Phe Pro Gly
 370 375 380
 Ala Glu His Cys Leu Arg Ala Ser Pro Glu Thr Thr Leu Ser Ser Gly
 385 390 395 400
 10 Phe Phe Val Ala Val Ile Glu Arg Val Glu Val Pro Ser Ser Ala Ser
 405 410 415
 Gln Ala Lys Ala Ser Ala Pro Glu Arg Thr Pro Ser Pro Ala Pro Lys
 420 425 430
 Arg Lys Lys Arg Gln Gln Arg Ala Ala Ala Gly Ala Cys Thr Pro Pro
 435 440 445
 15 Cys Thr
 450

 <210> 312
 20 <211> 382
 <212> PRT
 <213> Homo sapiens

 <220>
 25 <221> SIGNAL
 <222> -16...-1

 <400> 312
 Met Gly Leu Tyr Ala Ala Ala Ala Gly Val Leu Ala Gly Val Glu Ser
 -15 -10 -5
 30 Arg Gln Gly Ser Ile Lys Gly Leu Val Tyr Ser Ser Asn Phe Gln Asn
 1 5 10 15
 Val Lys Gln Leu Tyr Ala Leu Val Cys Glu Thr Gln Arg Tyr Ser Ala
 20 25 30
 35 Val Leu Asp Ala Val Ile Ala Ser Ala Gly Leu Leu Arg Ala Glu Lys
 35 40 45
 Lys Leu Arg Pro His Leu Ala Lys Val Leu Val Tyr Glu Leu Leu Leu
 50 55 60
 Gly Lys Gly Phe Arg Gly Gly Gly Arg Trp Lys Ala Leu Leu Gly
 40 65 70 75 80
 Arg His Gln Ala Arg Leu Lys Ala Glu Leu Ala Arg Leu Lys Val His
 85 90 95
 Arg Gly Val Ser Arg Asn Glu Asp Leu Leu Glu Val Gly Ser Arg Pro
 100 105 110
 45 Gly Pro Ala Ser Gln Leu Pro Arg Phe Val Arg Val Asn Thr Leu Lys
 115 120 125
 Thr Cys Ser Asp Asp Val Val Asp Tyr Phe Lys Arg Gln Gly Phe Ser
 130 135 140
 Tyr Gln Gly Arg Ala Ser Ser Leu Asp Asp Leu Arg Ala Leu Lys Gly
 50 145 150 155 160
 Lys His Phe Leu Leu Asp Pro Leu Met Pro Glu Leu Leu Val Phe Pro
 165 170 175
 Ala Gln Thr Asp Leu His Glu His Pro Leu Tyr Arg Ala Gly His Leu
 180 185 190
 55 Ile Leu Gln Asp Arg Ala Ser Cys Leu Pro Ala Met Leu Leu Asp Pro
 195 200 205
 Pro Pro Gly Ser His Val Ile Asp Ala Cys Ala Ala Pro Gly Asn Lys
 210 215 220
 Thr Ser His Leu Ala Ala Leu Leu Lys Asn Gln Gly Lys Ile Phe Ala
 60 225 230 235 240
 Phe Asp Leu Asp Ala Lys Arg Leu Ala Ser Met Ala Thr Leu Leu Ala
 245 250 255
 Arg Ala Gly Val Ser Cys Cys Glu Leu Ala Glu Glu Asp Phe Leu Ala

260 265 270
 Val Ser Pro Ser Asp Pro Arg Tyr His Glu Val His Tyr Ile Leu Leu
 275 280 285
 Asp Pro Ser Cys Ser Gly Ser Gly Met Pro Ser Arg Gln Leu Glu Glu
 290 295 300
 5 Pro Gly Ala Gly Thr Pro Ser Pro Val Arg Leu His Ala Leu Ala Ala
 305 310 315 320
 Ser Ser Ser Glu Pro Cys Ala Thr Arg Ser Leu Ser Leu Pro Cys Ser
 325 330 335
 10 Gly Ser Ser Thr Pro Arg Ala Pro Ser Ala Arg Arg Arg Met Lys Thr
 340 345 350
 Trp Cys Glu Met Arg Cys Ser Arg Thr Arg Ala Pro Ser Gly
 355 360 365

 15 <210> 313
 <211> 258
 <212> PRT
 <213> Homo sapiens

 20 <220>
 <221> SIGNAL
 <222> -36...-1

 <400> 313
 25 Met Glu Glu Leu Gln Glu Pro Leu Arg Gly Glu Leu Arg Leu Cys Phe
 -35 -30 -25
 Thr Gln Ala Ala Arg Thr Ser Leu Leu Leu Leu Arg Leu Asn Asp Ala
 -20 -15 -10 -5
 Ala Leu Arg Ala Leu Gln Glu Cys Gln Arg Gln Gln Val Arg Pro Val
 30 1 5 10
 Ile Ala Phe Gln Gly His Arg Gly Tyr Leu Arg Leu Pro Gly Pro Gly
 15 20 25
 Trp Ser Cys Leu Phe Ser Phe Ile Val Ser Gln Cys Cys Gln Glu Gly
 30 35 40
 35 Ala Gly Gly Ser Leu Asp Leu Val Cys Gln Arg Phe Leu Arg Ser Gly
 45 50 55 60
 Pro Asn Ser Leu His Cys Leu Gly Ser Leu Arg Glu Arg Leu Ile Ile
 65 70 75
 Trp Ala Ala Met Asp Ser Ile Pro Ala Pro Ser Ser Val Gln Gly His
 40 80 85 90
 Asn Leu Thr Glu Asp Ala Arg His Pro Glu Ser Trp Gln Asn Thr Gly
 95 100 105
 Gly Tyr Ser Glu Gly Asp Ala Val Ser Gln Pro Gln Met Ala Leu Glu
 110 115 120
 45 Glu Val Ser Val Ser Asp Pro Leu Ala Ser Asn Gln Gly Gln Ser Leu
 125 130 135 140
 Pro Gly Ser Ser Arg Glu His Met Ala Gln Trp Glu Val Arg Ser Gln
 145 150 155
 Thr His Val Pro Asn Arg Glu Pro Val Gln Ala Leu Pro Ser Ser Ala
 50 160 165 170
 Ser Arg Lys Arg Leu Asp Lys Lys Arg Ser Val Pro Val Ala Thr Val
 175 180 185
 Glu Leu Glu Glu Lys Arg Phe Arg Thr Leu Pro Leu Val Pro Pro Pro
 190 195 200
 55 Thr Arg Pro Asp Gln Ser Gly Phe Thr Arg Gly Arg Arg Leu Gly Ala
 205 210 215 220
 Arg Arg

 <210> 314
 60 <211> 280
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 <222> -33...-1

5 <400> 314
 Met Lys Ser Cys Gly Ser Met Leu Gly Leu Trp Gly Gln Arg Leu Pro
 -30 -25 -20
 Ala Ala Trp Val Leu Leu Leu Leu Pro Phe Leu Pro Leu Leu Leu Leu
 -15 -10 -5
 10 Ala Ala Pro Ala Pro His Arg Ala Ser Tyr Lys Pro Val Ile Val Val
 1 5 10 15
 His Gly Leu Phe Asp Ser Ser Tyr Ser Phe Arg His Leu Leu Glu Tyr
 20 25 30
 Ile Asn Glu Thr His Pro Gly Thr Val Val Thr Val Leu Asp Leu Phe
 35 40 45
 15 Asp Gly Arg Glu Ser Leu Arg Pro Leu Trp Glu Gln Val Gln Gly Phe
 50 55 60
 Arg Glu Ala Val Val Pro Ile Met Ala Lys Ala Pro Gln Gly Val His
 65 70 75
 20 Leu Ile Cys Tyr Ser Gln Gly Gly Leu Val Cys Arg Ala Leu Leu Ser
 80 85 90 95
 Val Met Asp Asp His Asn Val Asp Ser Phe Ile Ser Leu Ser Ser Pro
 100 105 110
 Gln Met Gly Gln Tyr Gly Asp Thr Asp Tyr Leu Lys Trp Leu Phe Pro
 115 120 125
 25 Thr Ser Met Arg Ser Asn Leu Tyr Arg Ile Cys Tyr Ser Pro Leu Ile
 130 135 140
 Asn Gly Glu Arg Asp His Pro Asn Ala Thr Val Trp Arg Lys Asn Phe
 145 150 155
 30 Leu Arg Val Gly His Leu Val Leu Ile Gly Gly Pro Asp Asp Gly Val
 160 165 170 175
 Ile Thr Pro Trp Gln Ser Ser Phe Phe Gly Phe Tyr Asp Ala Asn Glu
 180 185 190
 Thr Val Leu Glu Met Glu Glu Gln Leu Val Tyr Leu Arg Asp Ser Phe
 195 200 205
 35 Gly Leu Lys Thr Leu Leu Ala Arg Gly Ala Ile Val Arg Cys Pro Met
 210 215 220
 Ala Gly Ile Ser His Thr Ala Trp His Ser Asn Arg Thr Leu Tyr Glu
 225 230 235
 40 Thr Cys Ile Glu Pro Trp Leu Ser
 240 245

<210> 315
 <211> 174
 45 <212> PRT
 <213> Homo sapiens

<220>
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 50 <222> -33...-1

 <400> 315
 Met Lys Ser Cys Gly Ser Met Leu Gly Leu Trp Gly Gln Arg Leu Pro
 -30 -25 -20
 55 Ala Ala Trp Val Leu Leu Leu Leu Pro Phe Leu Pro Leu Leu Leu
 -15 -10 -5
 Ala Ala Pro Ala Pro His Arg Ala Ser Tyr Lys Pro Val Ile Val Val
 1 5 10 15
 His Gly Leu Phe Asp Ser Ser Tyr Ser Phe Arg His Leu Leu Glu Tyr
 20 25 30
 60 Ile Asn Glu Thr His Pro Gly Thr Val Val Thr Val Leu Asp Leu Phe
 35 40 45
 Asp Gly Arg Glu Ser Leu Arg Pro Leu Trp Glu Gln Val Gln Gly Phe

50 55 60
 Arg Glu Ala Val Val Pro Ile Met Ala Lys Ala Pro Gln Gly Val His
 65 70 75
 Leu Ile Cys Tyr Ser Gln Gly Gly Leu Val Cys Arg Ala Leu Leu Ser
 5 80 85 90 95
 Val Met Asp Asp His Asn Val Asp Ser Phe Ile Ser Leu Ser Ser Pro
 100 105 110
 Gln Met Gly Gln Tyr Gly Asp Thr Asp Tyr Leu Lys Trp Leu Phe Pro
 115 120 125
 10 Thr Ser Met Arg Ser Asn Leu Tyr Arg Ile Cys Tyr Ser Pro
 130 135 140

<210> 316

<211> 160

15 <212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

20 <222> -17...-1

<400> 316

Met Ala Phe Thr Phe Ala Ala Phe Cys Tyr Met Leu Ser Leu Val Leu
 -15 -10 -5
 25 Cys Ala Ala Leu Ile Phe Phe Ala Ile Trp His Ile Ile Ala Phe Asp
 1 5 10 15
 Glu Leu Arg Thr Asp Phe Lys Ser Pro Ile Asp Gln Cys Asn Pro Val
 20 25 30
 His Ala Arg Glu Arg Leu Arg Asn Ile Glu Arg Ile Cys Phe Leu Leu
 30 35 40 45
 Arg Lys Leu Val Leu Pro Glu Tyr Ser Ile His Ser Leu Phe Cys Ile
 50 55 60
 Met Phe Leu Cys Ala Gln Glu Trp Leu Thr Leu Gly Leu Asn Val Pro
 65 70 75
 35 Leu Leu Phe Tyr His Phe Trp Arg Tyr Phe His Cys Pro Ala Asp Ser
 80 85 90 95
 Ser Glu Leu Ala Tyr Asp Pro Pro Val Val Met Asn Pro Asp Thr Leu
 100 105 110
 Ser Tyr Cys Gln Lys Glu Ala Trp Cys Lys Leu Ala Phe Tyr Leu Leu
 40 115 120 125
 Ser Phe Phe Tyr Tyr Leu Tyr Cys Met Ile Tyr Thr Leu Val Ser Ser
 130 135 140

<210> 317

45 <211> 426

<212> PRT

<213> Homo sapiens

<220>

50 <221> SIGNAL

<222> -28...-1

<400> 317

Met Ser Pro Ala Phe Arg Ala Met Asp Val Glu Pro Arg Ala Lys Gly
 -25 -20 -15
 55 Val Leu Leu Glu Pro Phe Val His Gln Val Gly Gly His Ser Cys Val
 -10 -5 1
 Leu Arg Phe Asn Glu Thr Thr Leu Cys Lys Pro Leu Val Pro Arg Glu
 5 10 15 20
 60 His Gln Phe Tyr Glu Thr Leu Pro Ser Glu Met Arg Lys Phe Thr Pro
 25 30 35
 Gln Tyr Lys Gly Val Val Ser Val Arg Phe Glu Glu Asp Glu Asp Arg
 40 45 50

Asn Leu Cys Leu Ile Ala Tyr Pro Leu Lys Gly Asp His Gly Ile Val
 55 60 65
 Asp Ile Val Asp Asn Ser Asp Cys Glu Pro Lys Ser Lys Leu Leu Arg
 70 75 80
 5 Trp Thr Thr Asn Lys Lys His His Val Leu Glu Thr Glu Lys Thr Pro
 85 90 95 100
 Lys Asp Trp Val Arg Gln His Arg Lys Glu Glu Lys Met Lys Ser His
 105 110 115
 10 Lys Leu Glu Glu Glu Phe Glu Trp Leu Lys Lys Ser Glu Val Leu Tyr
 120 125 130
 Tyr Thr Val Glu Lys Lys Gly Asn Ile Ser Ser Gln Leu Lys His Tyr
 135 140 145
 Asn Pro Trp Ser Met Lys Cys His Gln Gln Gln Leu Gln Arg Met Lys
 150 155 160
 15 Glu Asn Ala Lys His Arg Asn Gln Tyr Lys Phe Ile Leu Leu Glu Asn
 165 170 175 180
 Leu Thr Ser Arg Tyr Glu Val Pro Cys Val Leu Asp Leu Lys Met Gly
 185 190 195
 20 Thr Arg Gln His Gly Asp Asp Ala Ser Glu Glu Lys Ala Ala Asn Gln
 200 205 210
 Ile Arg Lys Cys Gln Gln Ser Thr Ser Ala Val Ile Gly Val Arg Val
 215 220 225
 Cys Gly Met Gln Val Tyr Gln Ala Gly Ser Gly Gln Leu Met Phe Met
 230 235 240
 25 Asn Lys Tyr His Gly Arg Lys Leu Ser Val Gln Gly Phe Lys Glu Ala
 245 250 255 260
 Leu Phe Gln Phe Phe His Asn Gly Arg Tyr Leu Arg Arg Glu Leu Leu
 265 270 275
 30 Gly Pro Val Leu Lys Lys Leu Thr Glu Leu Lys Ala Val Leu Glu Arg
 280 285 290
 Gln Glu Ser Tyr Arg Phe Tyr Ser Ser Ser Leu Leu Val Ile Tyr Asp
 295 300 305
 Gly Lys Glu Arg Pro Glu Val Val Leu Asp Ser Asp Ala Glu Asp Leu
 310 315 320
 35 Glu Asp Leu Ser Glu Glu Ser Ala Asp Glu Ser Ala Gly Ala Tyr Ala
 325 330 335 340
 Tyr Lys Pro Ile Gly Ala Ser Ser Val Asp Val Arg Met Ile Asp Phe
 345 350 355
 40 Ala His Thr Thr Cys Arg Leu Tyr Gly Glu Asp Thr Val Val His Glu
 360 365 370
 Gly Gln Asp Ala Gly Tyr Ile Phe Gly Leu Gln Ser Leu Ile Asp Ile
 375 380 385
 Val Thr Glu Ile Ser Glu Glu Ser Gly Glu
 390 395
 45
 <210> 318
 <211> 301
 <212> PRT
 <213> Homo sapiens
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 <220>
 <221> SIGNAL
 <222> -20...-1
 55 <400> 318
 Met Ala Arg His Gly Leu Pro Leu Leu Pro Leu Leu Ser Leu Leu Val
 -20 -15 -10 -5
 Gly Ala Trp Leu Lys Leu Gly Asn Gly Gln Ala Thr Ser Met Val Gln
 1 5 10
 60 Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser Arg
 15 20 25
 Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala Ile
 30 35 40

Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg Glu
 45 50 55 60
 Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Leu Ser Phe Val Phe
 65 70 75
 5 Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro Met
 80 85 90
 Lys Ser Val Leu Trp Trp Leu Pro Val Glu Lys Ala Phe Trp Arg Gln
 95 100 105
 Pro Ala Gly Pro Gly Ser Gly Ile Arg Glu Arg Leu Glu His Pro Val
 110 115 120
 10 Leu His Val Ser Trp Asn Asp Ala Arg Ala Tyr Cys Ala Trp Arg Gly
 125 130 135 140
 Lys Arg Leu Pro Thr Glu Glu Glu Trp Glu Phe Ala Ala Arg Gly Gly
 145 150 155
 15 Leu Lys Gly Gln Val Tyr Pro Trp Gly Asn Trp Phe Gln Pro Asn Arg
 160 165 170
 Thr Asn Leu Trp Gln Gly Lys Phe Pro Lys Gly Asp Lys Ala Glu Asp
 175 180 185
 Gly Phe His Gly Val Ser Pro Val Asn Ala Phe Pro Ala Gln Asn Asn
 190 195 200
 20 Tyr Gly Leu Tyr Asp Leu Leu Gly Asn Val Trp Glu Trp Thr Ala Ser
 205 210 215 220
 Pro Tyr Gln Ala Ala Glu Gln Asp Met Arg Val Leu Arg Gly Ala Ser
 225 230 235
 25 Trp Ile Asp Thr Ala Asp Gly Ser Ala Asn His Arg Ala Arg Val Thr
 240 245 250
 Thr Arg Met Gly Asn Thr Pro Asp Ser Ala Ser Asp Asn Leu Gly Phe
 255 260 265
 Arg Cys Ala Ala Asp Ala Gly Arg Pro Pro Gly Glu Leu
 270 275 280
 30

<210> 319

<211> 119

<212> PRT

35 <213> Homo sapiens

<220>

<221> SIGNAL

<222> -17...-1

40

<400> 319

Met Gly Ser Gly Trp Leu Thr Ala Val Ala Ser Leu Leu Pro Ser Pro
 -15 -10 -5
 Gly Asn Ser Glu Leu Pro Val Gln Ala Leu Gly Arg Arg Gly Gly Arg
 1 5 10 15
 45 Asp Trp Ala Arg Asn Glu Ala Gly Arg Asp Leu Glu Lys Pro Pro Arg
 20 25 30
 Leu His Cys Ser Gly Arg Gly Arg Leu Glu Glu Pro Val Pro Pro Asn
 35 40 45
 50 His Leu Pro Val Gly Leu Ser Val Arg Gly Ser Gln Val Leu Ser Ser
 50 55 60
 Ala Gly Pro Arg Arg Cys Arg Leu Thr Gly Thr Arg Asn Pro Val Arg
 65 70 75
 Gly Pro Arg Arg Val Glu Gln Ile Ala Arg Gly Gly Pro Glu Ala Arg
 80 85 90 95
 55 Arg Gln Ala Gly Asp Ser Cys
 100

<210> 320

60 <211> 95

<212> PRT

<213> Homo sapiens

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5  <220>
    <221> SIGNAL
    <222> -39...-1

5  <400> 320
    Met Asp Tyr Ser Arg Val Phe Gln Gly Val Phe Phe Thr Phe Lys His
        -35 -30 -25
    Ala Phe Ala Asp Gly Ala Trp Asp Leu Ser Phe Leu Cys Ala Leu Cys
        -20 -15 -10
10  Ser Phe Cys Pro Ile Ser Ala Ala Ser Gly Arg Pro Tyr Arg Tyr Leu
        -5 1 5
    Glu Phe Trp Arg Leu Tyr Leu Ser Pro Ser Ser Met Glu Asn Gly Val
    10 15 20 25
    Gln Lys Phe His Glu Thr Phe Phe Ile Val Phe Leu Leu Leu Phe Asp
    15 30 35 40
    Ile Glu Arg Lys Gly Lys Ser Ser Val Cys Pro Phe Cys Tyr Arg
        45 50 55

    <210> 321
20  <211> 191
    <212> PRT
    <213> Homo sapiens

    <220>
25  <221> SIGNAL
    <222> -39...-1

    <400> 321
30  Met Met Thr Ile Thr Phe Leu Pro Tyr Thr Phe Ser Leu Met Val Thr
        -35 -30 -25
    Phe Pro Asp Val Pro Leu Gly Ile Phe Leu Phe Cys Val Cys Val Ile
        -20 -15 -10
    Ala Ile Gly Val Val Gln Ala Leu Ile Val Gly Tyr Ala Phe His Phe
        -5 1 5
35  Pro His Leu Leu Ser Pro Gln Ile Gln Arg Ser Ala His Arg Ala Leu
    10 15 20 25
    Tyr Arg Arg His Val Leu Gly Ile Val Leu Gln Gly Pro Ala Leu Cys
        30 35 40
    Phe Ala Ala Ala Ile Phe Ser Leu Phe Phe Val Pro Leu Ser Tyr Leu
    40 45 50 55
    Leu Met Val Thr Val Ile Leu Leu Pro Tyr Val Ser Lys Val Thr Gly
        60 65 70
    Trp Cys Arg Asp Arg Leu Leu Gly His Arg Glu Pro Ser Ala His Pro
        75 80 85
45  Val Glu Val Phe Ser Phe Asp Leu His Glu Pro Leu Ser Lys Glu Arg
    90 95 100 105
    Val Glu Ala Phe Ser Asp Gly Val Tyr Ala Ile Val Ala Thr Leu Leu
        110 115 120
    Ile Leu Asp Ile Cys Pro Ser Cys Ser Leu Trp Leu Ala Val Ala Ser
    50 125 130 135
    Phe Gln Arg Leu Leu Leu Arg Gly Leu Ile Cys Leu Phe Val Cys
        140 145 150

    <210> 322
55  <211> 89
    <212> PRT
    <213> Homo sapiens

    <220>
60  <221> SIGNAL
    <222> -41...-1

    <400> 322

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Met Pro Pro Thr Arg Asp Pro Phe Gln Gln Pro Thr Leu Asp Asn Asp
 -40 -35 -30
 Asp Ser Tyr Leu Gly Glu Leu Arg Ala Ser Lys Val Leu Trp Phe Leu
 -25 -20 -15 -10
 5 Ala Gln Ile Pro Ser Arg Val Ala Gly Ser Leu Leu Ser Val Cys Val
 -5 1 5
 Met Ser Arg Asp Gly Asn Ile Lys Asp Ser Gly Glu Asp Thr Gln Ser
 10 10 15 20
 Gly Thr Arg Glu Val Cys Phe Leu Pro Ala Ser Leu Ser Pro Tyr Ser
 25 30 35
 Ser Arg Leu Thr Phe Gln Arg Arg Phe
 40 45

 <210> 323
 15 <211> 70
 <212> PRT
 <213> Homo sapiens

 <220>
 20 <221> SIGNAL
 <222> -38...-1

 <400> 323
 25 Met Ser Ser Pro Gln Leu Pro Ala Phe Leu Trp Asp Lys Gly Thr Leu
 -35 -30 -25
 Thr Thr Ala Ile Ser Asn Pro Ala Cys Leu Val Asn Val Leu Phe Phe
 -20 -15 -10
 Phe Thr Pro Leu Met Thr Leu Val Thr Leu Leu Ile Leu Val Trp Lys
 -5 1 5 10
 30 Val Thr Lys Asp Lys Ser Asn Lys Asn Arg Glu Thr His Pro Arg Lys
 15 20 25
 Glu Ala Thr Trp Leu Pro
 30

 35 <210> 324
 <211> 168
 <212> PRT
 <213> Homo sapiens

 40 <220>
 <221> SIGNAL
 <222> -25...-1

 <400> 324
 45 Met Arg Gly Pro Thr Ala Gly Pro Ser Val Leu Ser Ala Ala His Leu
 -25 -20 -15 -10
 Leu Val Val Ile Leu Pro Ala Asn Ala Ala Leu Lys Leu Leu Ser Trp
 -5 1 5
 Glu Arg Leu Ala Ala Pro Ala Ile Glu Val Glu Val Pro Ser Lys Glu
 10 15 20
 50 Val Leu Ala Ala Pro Thr Lys Ala Lys Leu Ile Pro Ser Glu Asp Met
 25 30 35
 Leu Ala Ala Pro Ala Met Asp Leu Leu Asp Ser Phe Ser Pro Gly Phe
 40 45 50 55
 55 Leu Ile Ala Ala Pro Ala Ser Ala Val Ile Thr Trp Pro Gly Pro Ala
 60 60 65 70
 Asp Leu Val Val Ala Met Leu Ile Ala Pro Val Ala Gly Leu Ile Ala
 75 80 85
 Ala Pro Ala Ile Ala Thr Ser Val Leu Gly Pro Val Ala Val Pro Ala
 90 95 100
 60 Thr Ala Met Pro Pro Ala Val Leu Ala Ala Pro Pro Ser Ala Ala Pro
 105 110 115
 Gly Val Leu Val Asp Gly Glu Ala Ala Leu Ala Val Pro Trp Glu Ala

120
 Cys Trp Ile Pro Ser
 125
 Pro Pro Ala
 130
 135
 140

5 <210> 325
 <211> 166
 <212> PRT
 <213> Homo sapiens

10 <220>
 <221> SIGNAL
 <222> -15...-1
 <400> 325

15 Met Leu Pro Leu Leu Ile Ile Cys Leu Leu Pro Ala Ile Glu Gly Lys
 -15 -10 -5 1
 Asn Cys Leu Arg Cys Trp Pro Glu Leu Ser Ala Leu Ile Asp Tyr Asp
 5 10 15
 Leu Gln Ile Leu Trp Val Thr Pro Gly Pro Pro Thr Glu Leu Ser Gln
 20 20 25 30
 Asn Arg Asp His Leu Glu Glu Thr Ala Lys Phe Phe Thr Gln Val
 35 40 45
 His Gln Ala Ile Lys Thr Leu Arg Asp Asp Lys Thr Val Leu Leu Glu
 50 55 60 65
 25 Glu Ile Tyr Thr His Lys Asn Leu Phe Thr Glu Arg Leu Asn Lys Ile
 70 75 80
 Ser Asp Gly Leu Lys Glu Lys Asp Ile Gln Ser Thr Leu Lys Val Thr
 85 90 95
 Ser Cys Ala Asp Cys Arg Thr His Phe Leu Ser Cys Asn Asp Pro Thr
 100 105 110
 30 Phe Cys Pro Ala Arg Asn Arg Arg Thr Ser Leu Trp Ala Val Ser Leu
 115 120 125
 Ser Ser Ala Leu Leu Leu Ala Ile Ala Gly Asp Val Ser Phe Thr Gly
 130 135 140 145
 35 Lys Gly Arg Arg Arg Gln
 150

<210> 326
 <211> 156
 40 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 45 <222> -15...-1
 <400> 326

Met Asn Ile Leu Met Leu Thr Phe Ile Ile Cys Gly Leu Leu Thr Arg
 -15 -10 -5 1
 50 Val Thr Lys Gly Ser Phe Glu Pro Gln Lys Cys Trp Lys Asn Asn Val
 5 10 15
 Gly His Cys Arg Arg Arg Cys Leu Asp Thr Glu Arg Tyr Ile Leu Leu
 20 25 30
 Cys Arg Asn Lys Leu Ser Cys Cys Ile Ser Ile Ile Ser His Glu Tyr
 35 40 45
 55 Thr Arg Arg Pro Ala Phe Pro Val Ile His Leu Glu Asp Ile Thr Leu
 50 55 60 65
 Asp Tyr Ser Asp Val Asp Ser Phe Thr Gly Ser Pro Val Ser Met Leu
 70 75 80
 60 Asn Asp Leu Ile Thr Phe Asp Thr Thr Lys Phe Gly Glu Thr Met Thr
 85 90 95
 Pro Glu Thr Asn Thr Pro Glu Thr Thr Met Pro Pro Ser Glu Ala Thr
 100 105 110

Thr Pro Glu Thr Thr Met Pro Pro Ser Glu Thr Ala Thr Ser Glu Thr
 115 120 125
 Met Pro Pro Pro Ser Gln Thr Ala Leu Thr His Asn
 130 135 140
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 <210> 327
 <211> 105
 <212> PRT
 <213> Homo sapiens
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 <220>
 <221> SIGNAL
 <222> -32...-1
 15
 <400> 327
 Met Ala Lys Met Phe Asp Leu Arg Thr Lys Ile Met Ile Gly Ile Glu
 -30 -25 -20
 Ser Ser Leu Leu Val Ala Ala Met Val Leu Leu Ser Val Val Phe Cys
 -15 -10 -5
 20 Leu Tyr Phe Lys Val Ala Lys Ala Leu Lys Ala Ala Lys Asp Pro Asp
 1 5 10 15
 Ala Val Ala Val Lys Asn His Asn Pro Asp Lys Val Cys Trp Ala Thr
 20 25 30
 Asn Ser Gln Ala Lys Ala Thr Thr Met Glu Ser Cys Pro Ser Leu Gln
 35 40 45
 25 Cys Cys Glu Gly Cys Arg Met His Ala Ser Ser Asp Ser Leu Pro Pro
 50 55 60
 Cys Cys Cys Asp Ile Asn Glu Gly Leu
 65 70
 30
 <210> 328
 <211> 81
 <212> PRT
 <213> Homo sapiens
 35
 <220>
 <221> SIGNAL
 <222> -27...-1
 40
 <400> 328
 Met Ser Asp Glu Asp Glu Ser Ser Asp Tyr Leu Cys Leu Ser Ile Leu
 -25 -20 -15
 Gly Leu Phe Cys Cys Leu Pro Leu Ala Ile Pro Ala Val Ile Phe Ser
 -10 -5 1 5
 45 Cys Leu Thr Lys Asn Tyr Asn Lys Ser Ser Asp Tyr Glu Leu Ala Ala
 10 15 20
 Lys Thr Ser Lys Gln Ala Tyr Tyr Trp Ala Ile Ala Ser Ile Thr Val
 25 30 35
 Gly Ile Leu Gly Thr Ile Leu Tyr Thr Tyr Leu Ile Tyr Leu Leu Arg
 50 40 45 50
 Leu
 <210> 329
 <211> 95
 55 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SIGNAL
 60 <222> -27...-1
 <400> 329
 Met Thr Asp Gln Asp Arg Ile Ile Asn Leu Val Val Gly Ser Leu Thr

-25 -20 -15
 Ser Leu Leu Ile Leu Val Thr Leu Ile Ser Ala Phe Val Phe Pro Gln
 -10 -5 1 5
 5 Leu Pro Pro Lys Pro Leu Asn Ile Phe Phe Ala Val Cys Ile Ser Leu
 10 15 20
 Ser Ser Ile Thr Ala Cys Ile Ile Tyr Trp Tyr Arg Gln Gly Asp Leu
 25 30 35
 Glu Pro Lys Phe Arg Lys Leu Ile Tyr Tyr Ile Ile Phe Ser Ile Ile
 40 45 50
 10 Met Leu Cys Ile Cys Ala Asn Leu Tyr Phe His Asp Val Gly Arg
 55 60 65

<210> 330

<211> 84

15 <212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

20 <222> -20..-1

<400> 330

Met Ala Ala Ala Ala Val Pro Ser Leu Leu Leu Ser Leu Pro Pro His
 -20 -15 -10 -5
 25 Gln Gly Leu Thr Phe Ser Asn Lys Ile Gln Pro Phe Gly Ala Gln Gly
 1 5 10
 Val Leu His Pro Glu Pro Gly Leu Arg Asp Trp Leu Leu Pro Thr Cys
 15 20 25
 30 Ser Arg Gln Leu Arg Val Ala Leu Pro Glu Lys Gly Ser Glu Gly Ser
 30 35 40
 Leu Cys Gln Thr Gln Leu Pro Ala Thr Pro Cys Phe Leu Pro Ser Asn
 45 50 55 60
 Thr Val Arg Thr

35 <210> 331

<211> 124

<212> PRT

<213> Homo sapiens

40 <220>

<221> SIGNAL

<222> -32..-1

<400> 331

45 Met Val Val Val Glu Pro Gly Ala Ser Leu Phe Pro Asn Gly Val Pro
 -30 -25 -20
 Trp Leu Tyr Ala Val Phe Ala Val Leu Phe Val Phe Leu Phe Ala
 -15 -10 -5
 Met Leu Ser Pro Phe Leu Leu Glu Ile Asp Gln His Ile Lys Lys Phe
 50 1 5 10 15
 Leu Ile Arg Cys Arg Tyr Ser Leu His Asn Thr Val His Lys Asp Lys
 20 25 30
 Lys Asn Ser Glu Ile Lys Met Asp His Leu Glu Arg Pro Gly Cys Pro
 35 40 45
 55 Leu Glu Ser Pro Arg Arg Gly Val Leu Gly Gly Lys Lys Asn Gly Met
 50 55 60
 Gly Asn Asp Pro Leu Leu Phe Val Lys Val Thr Lys Glu Pro Arg Asp
 65 70 75 80
 Ser Glu Ala Glu Ile Tyr Thr Pro Gly Pro Ser Val
 60 85 90

<210> 332

<211> 62

<212> PRT
 <213> Homo sapiens

<220>
 5 <221> SIGNAL
 <222> -46...-1

<400> 332
 Met Asp Gln Leu Val Phe Lys Glu Thr Ile Trp Asn Asp Ala Phe Trp
 10 -45 -40 -35
 Gln Asn Pro Trp Asp Gln Gly Gly Leu Ala Val Ile Ile Leu Phe Ile
 -30 -25 -20 -15
 Thr Ala Val Leu Leu Leu Ile Leu Phe Ala Ile Val Phe Gly Leu Leu
 -10 -5 1
 15 Thr Ser Thr Glu Asn Thr Gln Cys Glu Ala Gly Glu Glu Glu
 5 10 15

<210> 333
 <211> 150
 20 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 25 <222> -23...-1

<400> 333
 Met Ser Asn Gln Arg Leu Pro Leu Ile Phe Ser Leu Leu Phe Ile Cys
 -20 -15 -10
 30 Phe Phe Gly Glu Ser Phe Cys Ile Cys Asp Gly Thr Val Trp Thr Lys
 -5 1 5
 Val Gly Trp Glu Ile Leu Pro Glu Glu Val His Tyr Trp Lys Gly Cys
 10 15 20 25
 Leu Tyr Leu Ile Tyr Asn Leu Leu Gln Ala Val Phe Phe Val Leu Phe
 35 30 35 40
 Val Leu Ser Val His Tyr Leu Trp Lys Lys Trp Lys Lys His Gln Lys
 45 50 55
 Lys Leu Lys Lys Gln Ala Ser Leu Glu Lys Pro Gly Asn Asp Leu Glu
 60 65 70
 40 Ser Pro Leu Ile Asn Asn Ile Asp Gln Thr Leu His Arg Val Ala Thr
 75 80 85
 Thr Ala Ser Val Ile Tyr Lys Ile Trp Glu His Arg Ser His His Pro
 90 95 100 105
 Ser Ser Lys Lys Ile Lys His Cys Lys Leu Lys Lys Lys Ser Lys Glu
 45 110 115 120
 Glu Gly Ala Arg Arg Tyr
 125

<210> 334
 50 <211> 198
 <212> PRT
 <213> Homo sapiens

<220>
 55 <221> SIGNAL
 <222> -13...-1

<400> 334
 Met Leu Leu Gly Arg Leu Thr Ser Gln Leu Leu Arg Ala Val Pro Trp
 -10 -5 1
 60 Ala Gly Gly Arg Pro Pro Trp Pro Val Ser Gly Val Leu Gly Ser Arg
 5 10 15
 Val Cys Gly Pro Leu Tyr Ser Thr Ser Pro Ala Gly Pro Gly Arg Ala

[illegible]

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    <210> 335
    <211> 88
25  <212> PRT
    <213> Homo sapiens

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    <220>
    <221> SIGNAL
30  <222> -24..-1

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	<400>	335																
	Met Val Pro Leu Pro Lys Gln Ser Leu Lys Phe Phe Cys Ala Leu Glu	-20	-15	-10														
35	Val Val Leu Pro Ser Cys Asp Cys Arg Ser Pro Gly Ile Gly Leu Val	-5	1	5														
	Glu Glu Pro Met Asp Lys Val Glu Glu Gly Pro Leu Ser Phe Leu Met	10	15	20														
	Lys Arg Lys Thr Ala Gln Lys Leu Ala Ile Gln Lys Ala Leu Ser Asp	25	30	35	40													
40	Ala Phe Gln Lys Leu Leu Ile Val Val Leu Gly Lys Thr Val Leu Ile	45	50	55														
	Ile Leu Glu Val Leu Gln Phe Gln	60																

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<210> 336
<211> 150
<212> PRT
<213> Homo sapiens
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    <220>
    <221> SIGNAL
    <222> -45..-1
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55  <400> 336
    Met Val Leu Met Trp Thr Ser Gly Asp Ala Phe Lys Thr Ala Tyr Phe
      -45              -40              -35              -30
    Leu Leu Lys Gly Ala Pro Leu Gln Phe Ser Val Cys Gly Leu Leu Gln
      -25              -20              -15
60  Val Leu Val Asp Leu Ala Ile Leu Gly Gln Ala Tyr Ala Phe Ala Pro
      -10              -5              1
    Pro Pro Glu Ala Gly Ala Pro Arg Arg Ala Pro His Trp His Gln Gly
      5              10              15

```

Pro Leu Thr Val Gly Arg Thr Arg Met Trp Asp Arg Gln Pro Arg Ala
 20 25 30 35
 Leu Val Gly Pro Asp Leu Pro Ala Gly Arg Val Gly Ala Val Ala Pro
 40 45 50
 5 Ala Gly Val Ala Glu Met Gly His Gly His Trp Gly Leu His Gln Pro
 55 60 65
 Leu Trp Gly Val Ser Gly Trp Ala Val Gly Val Gly Leu Gly Arg Cys
 70 75 80
 10 Leu Cys Ser Ala Gly Thr Ala Arg Val Asp Leu Ala Pro Arg Val Leu
 85 90 95
 Asp Val Phe Arg Met Thr
 100 105

<210> 337
 15 <211> 142
 <212> PRT
 <213> Homo sapiens

<220>
 20 <221> SIGNAL
 <222> -19...-1

<400> 337
 25 Met Ala Thr Ala Ser Pro Ser Val Phe Leu Leu Met Val Asn Gly Gln
 -15 -10 -5
 Val Glu Ser Ala Gln Phe Pro Glu Tyr Asp Asp Phe Tyr Cys Lys Tyr
 1 5 10
 Cys Phe Val Tyr Gly Gln Asp Trp Ala Pro Thr Ala Gly Leu Glu Glu
 15 20 25
 30 Gly Ile Ser Gln Ile Thr Ser Lys Ser Gln Asp Val Arg Gln Ala Leu
 30 35 40 45
 Val Trp Asn Phe Pro Ile Asp Val Thr Phe Lys Ser Thr Asn Pro Tyr
 50 55 60
 Gly Trp Pro Gln Ile Val Leu Ser Val Tyr Gly Pro Asp Val Phe Gly
 65 70 75
 35 Asn Asp Val Val Arg Gly Tyr Gly Ala Val His Val Pro Phe Ser Pro
 80 85 90
 Gly Arg His Lys Arg Thr Ile Pro Met Phe Val Pro Glu Ser Thr Ser
 95 100 105
 40 Lys Leu Gln Lys Phe Thr Arg Ser Ala Ser Cys Ser Thr His
 110 115 120

<210> 338
 <211> 112
 45 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 50 <222> -27...-1

<220>
 <221> UNSURE
 <222> 21
 55 <223> Xaa = Ala,Pro

<400> 338
 Thr Ser Glu Glu Arg Thr Ala Met Lys Arg Glu Gly Gly Ala Ala His
 -25 -20 -15
 60 Leu Cys Ser Asp Ser Leu Pro Glu Ser Gln Gln Gln Asp Gly Asn His
 -10 -5 1 5
 Ala Pro Asn Phe Ser Ser His Gly Ser Cys Arg Arg Arg Gln Arg Xaa
 10 15 20

Asp Met Thr Arg Arg Cys Met Pro Ala Arg Pro Gly Phe Pro Ser Ser
 25 30 35
 Pro Ala Pro Gly Ser Ser Pro Pro Arg Cys His Leu Arg Pro Gly Ser
 40 45 50
 5 Thr Ala His Ala Ala Ala Gly Lys Arg Thr Glu Ser Pro Gly Asp Arg
 55 60 65
 Tyr Arg Ala Glu Gly Leu Arg Arg Gly Arg Val Ala Gly Ala Arg Val
 70 75 80 85

10 <210> 339
 <211> 90
 <212> PRT
 <213> Homo sapiens

15 <220>
 <221> SIGNAL
 <222> -32...-1

 <400> 339

20 Met Pro Cys Leu Asp Gln Gln Leu Thr Val His Ala Leu Pro Cys Pro
 -30 -25 -20
 Ala Gln Pro Ser Ser Leu Ala Phe Cys Gln Val Gly Phe Leu Thr Ala
 -15 -10 -5
 Gln Pro Ser Pro Pro Arg Arg Arg Asn Gly Lys Asp Arg Tyr Thr Leu
 25 1 5 10 15
 Val Leu Gln His Gln Glu Cys Gln Asp Asp Leu Ala Thr Ser Ser Leu
 20 25 30
 Val Tyr Leu Ser Leu Pro Cys Phe Lys Asp Leu Gly Arg Ser Lys His
 35 40 45

30 Gln Ser Ile Thr Val Ala Asp Thr Asn Lys
 50 55

 <210> 340
 <211> 80
 35 <212> PRT
 <213> Homo sapiens

 <220>
 <221> SIGNAL
 40 <222> -35...-1

 <400> 340

Met Pro Phe Gln Phe Gly Thr Gln Pro Arg Arg Phe Pro Val Glu Gly
 -35 -30 -25 -20
 45 Gly Asp Ser Ser Ile Glu Leu Glu Pro Gly Leu Ser Ser Ser Ala Ala
 -15 -10 -5
 Cys Asn Gly Lys Glu Met Ser Pro Thr Arg Gln Leu Arg Arg Cys Pro
 1 5 10
 Gly Ser His Cys Leu Thr Ile Thr Asp Val Pro Val Thr Val Tyr Ala
 50 15 20 25
 Thr Thr Arg Lys Pro Pro Ala Gln Ser Ser Lys Glu Met His Pro Lys
 30 35 40 45

 <210> 341
 55 <211> 131
 <212> PRT
 <213> Homo sapiens

 <220>
 60 <221> SIGNAL
 <222> -15...-1

 <400> 341

Met Ser Leu Leu Met Phe Thr Gln Leu Leu Leu Cys Gly Phe Leu Tyr
 -15 -10 -5 1
 Val Arg Val Asp Gly Ser Arg Leu Arg Gln Glu Asp Phe Pro Pro Arg
 5 5 10 15
 Ile Val Glu His Pro Ser Asp Val Ile Val Ser Lys Gly Glu Pro Thr
 20 25 30
 Thr Leu Asn Cys Lys Ala Glu Gly Arg Pro Thr Pro Thr Ile Glu Trp
 35 40 45
 Tyr Lys Asp Gly Glu Arg Val Glu Thr Asp Lys Asp Asp Pro Arg Ser
 10 50 55 60 65
 His Arg Met Leu Leu Pro Ser Gly Ser Leu Phe Phe Leu Arg Ile Val
 70 75 80
 His Gly Arg Arg Ser Lys Pro Asp Glu Gly Ser Tyr Val Cys Val Ala
 85 90 95
 15 Arg Asn Tyr Leu Gly Glu Ala Val Ser Arg Asn Ala Ser Leu Glu Val
 100 105 110
 Ala Cys Lys
 115

20 <210> 342
 <211> 99
 <212> PRT
 <213> Homo sapiens

25 <220>
 <221> SIGNAL
 <222> -39...-1

<400> 342
 30 Met Asp Leu Ile Gly Phe Gly Tyr Ala Ala Leu Val Thr Phe Gly Ser
 -35 -30 -25
 Ile Phe Gly Tyr Lys Arg Arg Gly Gly Val Pro Ser Leu Ile Ala Gly
 -20 -15 -10
 Leu Phe Val Gly Cys Leu Ala Gly Tyr Gly Ala Tyr Arg Val Ser Asn
 35 -5 1 5
 Asp Lys Arg Asp Val Lys Val Ser Leu Phe Thr Ala Phe Phe Leu Ala
 10 15 20 25
 Thr Ile Met Gly Val Arg Phe Lys Arg Ser Lys Lys Ile Met Pro Ala
 30 35 40
 40 Gly Leu Val Ala Gly Leu Ser Leu Met Met Ile Leu Arg Leu Val Leu
 45 50 55
 Leu Leu Leu
 60

45 <210> 343
 <211> 98
 <212> PRT
 <213> Homo sapiens

50 <220>
 <221> SIGNAL
 <222> -43...-1

<400> 343
 55 Met Cys Glu Thr Leu Leu Thr Ser Lys Trp Ala Ser Val Ser Pro Ile
 -40 -35 -30
 Pro Ala Leu Leu Gln Glu Gly Glu Asn Arg Asp Ser Arg Arg Leu Gly
 -25 -20 -15
 Asp Ala Leu Leu Phe Leu Arg Pro Ala Gly Ser Cys Ala Leu Gln Val
 60 -10 -5 1 5
 Ser Trp Pro Ala Ala Leu Ala Gly Pro Arg Ser His Thr Gly Gln Leu
 10 15 20
 Thr Gln His Phe Cys His Leu Lys Asn Asp Thr Cys Ile Pro Pro Ser

25 30 35
 Leu Gly Pro Arg Asn Ser Gly Ser Leu Glu Ser Leu Arg Ser Lys
 40 45 50
 Arg Tyr
 5 55
 <210> 344
 <211> 217
 <212> PRT
 10 <213> Homo sapiens
 <220>
 <221> SIGNAL
 <222> -19...-1
 15 <220>
 <221> UNSURE
 <222> 185
 <223> Xaa = Phe,Val
 20 <400> 344
 Met Val Gly Ile Leu Pro Leu Cys Cys Ser Gly Cys Val Pro Ser Leu
 -15 -10 -5
 Cys Cys Ser Ser Tyr Val Pro Ser Val Ala Pro Thr Ala Ala His Ser
 25 1 5 10
 Val Arg Val Pro His Ser Ala Gly His Cys Gly Gln Arg Val Leu Ala
 15 20 25
 Cys Ser Leu Pro Gln Val Phe Leu Lys Pro Trp Ile Phe Val Glu His
 30 30 35 40 45
 Phe Ser Ser Trp Leu Ser Leu Glu Leu Phe Ser Phe Leu Arg Tyr Leu
 50 55 60
 Gly Thr Leu Leu Cys Ala Cys Gly His Arg Leu Arg Glu Gly Arg Leu
 65 70 75
 Leu Pro Cys Leu Leu Gly Val Gly Ser Trp Leu Leu Phe Asn Asn Trp
 35 80 85 90
 Thr Gly Gly Ser Trp Phe Ser Leu His Leu Gln Gln Val Ser Leu Ser
 95 100 105
 Gln Gly Ser His Val Ala Phe Leu Pro Glu Ala Ile Gly Pro Gly
 110 115 120 125
 40 Val Pro Val Pro Val Ser Gly Glu Ser Thr Ser Ala Gln Gln Ser His
 130 135 140
 Ala Gly Trp Gln Leu Ser Ala Glu Ala Asp Ala Cys Pro Ser Val Leu
 145 150 155
 Tyr Ser Glu Val Leu Glu Trp Asn Lys Asn Ile Asn Thr Tyr Thr Ser
 45 160 165 170
 Phe His Asp Phe Cys Leu Ile Leu Gly Ile Phe Xaa Val Leu Phe Cys
 175 180 185
 Phe Gly Gly Asp Arg Leu Thr Leu His
 190 195
 50 <210> 345
 <211> 183
 <212> PRT
 <213> Homo sapiens
 55 <220>
 <221> SIGNAL
 <222> -20...-1
 60 <400> 345
 Met Lys Leu Leu Ser Leu Val Ala Val Val Gly Cys Leu Leu Val Pro
 -20 -15 -10 -5
 Pro Ala Glu Ala Asn Lys Ser Ser Glu Asp Ile Arg Cys Lys Cys Ile

1 5 10
 Cys Pro Pro Tyr Arg Asn Ile Ser Gly His Ile Tyr Asn Gln Asn Val
 15 20 25
 Ser Gln Lys Asp Cys Asn Cys Leu His Val Val Glu Pro Met Pro Val
 30 35 40
 5 Pro Gly His Asp Val Glu Ala Tyr Cys Leu Leu Cys Glu Cys Arg Tyr
 45 50 55 60
 Glu Glu Arg Ser Thr Thr Thr Ile Lys Val Ile Ile Val Ile Tyr Leu
 65 70 75
 10 Ser Val Val Gly Ala Leu Leu Leu Tyr Met Ala Phe Leu Met Leu Val
 80 85 90
 Asp Pro Leu Ile Arg Lys Pro Asp Ala Tyr Thr Glu Gln Leu His Asn
 95 100 105
 Glu Glu Glu Asn Glu Asp Ala Arg Ser Met Ala Ala Ala Ala Ser
 110 115 120
 15 Leu Gly Gly Pro Arg Ala Asn Thr Val Leu Glu Arg Val Glu Gly Ala
 125 130 135 140
 Gln Gln Arg Trp Lys Leu Gln Val Gln Glu Gln Arg Lys Thr Val Phe
 145 150 155
 20 Asp Arg His Lys Met Leu Ser
 160

 <210> 346
 <211> 247
 25 <212> PRT
 <213> Homo sapiens

 <220>
 <221> SIGNAL
 30 <222> -13...-1

 <400> 346
 Met Leu Val Leu Arg Ser Ala Leu Thr Arg Ala Leu Ala Ser Arg Thr
 -10 -5 1
 35 Leu Ala Pro Gln Met Cys Ser Ser Phe Ala Thr Gly Pro Arg Gln Tyr
 5 10 15
 Asp Gly Ile Phe Tyr Glu Phe Arg Ser Tyr Tyr Leu Lys Pro Ser Lys
 20 25 30 35
 Met Asn Glu Phe Leu Glu Asn Phe Glu Lys Asn Ala His Leu Arg Thr
 40 40 45 50
 Ala His Ser Glu Leu Val Gly Tyr Trp Ser Val Glu Phe Gly Gly Arg
 55 60 65
 Met Asn Thr Val Phe His Ile Trp Lys Tyr Asp Asn Phe Ala His Arg
 70 75 80
 45 Thr Glu Val Gln Lys Ala Leu Ala Lys Asp Lys Glu Trp Gln Glu Gln
 85 90 95
 Phe Leu Ile Pro Asn Leu Ala Leu Ile Asp Lys Gln Glu Ser Glu Ile
 100 105 110 115
 Thr Tyr Leu Val Pro Trp Cys Lys Leu Glu Lys Pro Pro Lys Glu Gly
 50 120 125 130
 Val Tyr Glu Leu Ala Thr Phe Gln Met Lys Pro Gly Gly Pro Ala Leu
 135 140 145
 Trp Gly Asp Ala Phe Lys Arg Ala Val His Ala His Val Asn Leu Gly
 150 155 160
 55 Tyr Thr Lys Leu Val Gly Val Phe His Thr Glu Tyr Gly Ala Leu Asn
 165 170 175
 Arg Val His Val Leu Trp Trp Asn Glu Ser Ala Asp Ser Arg Ala Ala
 180 185 190 195
 Gly Arg His Lys Ser His Glu Asp Pro Arg Val Val Ala Ala Val Arg
 200 205 210
 60 Glu Ser Val Asn Tyr Leu Val Ser Gln Gln Asn Met Leu Leu Ile Pro
 215 220 225
 Thr Ser Phe Ser Pro Leu Lys

230

<210> 347
 <211> 104
 5 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 10 <222> -47...-1

<400> 347
 Met Phe Ser Pro Arg Gln Ala Leu Thr Pro Asp Pro Leu His Ser Pro
 -45 -40 -35
 15 Ala Tyr Ser Pro Val Leu Gly Gly Trp Ser Arg Phe Arg Ser Val Asp
 -30 -25 -20
 Phe Arg Phe Leu Tyr Leu Thr Leu Asn Gln Ser Cys Ile Phe Ala Asn
 -15 -10 -5 1
 20 Tyr Lys Glu Ala His Ala Asn Arg Tyr Cys Thr Glu Gly Arg Tyr Thr
 5 10 15
 Arg Glu Ile Gln Arg Leu Thr Ser Pro Ala Ala Trp Pro Thr Arg Asp
 20 25 30
 Lys Asn Arg Met Ile Ser Asn Gly Met Ala Leu Asn Ser Pro Ala Glu
 35 40 45
 25 Gly Leu Ala Phe Gln Cys Arg Phe
 50 55

<210> 348
 <211> 125
 30 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 35 <222> -21...-1

<400> 348
 Met Ala Lys Tyr Leu Ala Gln Ile Ile Val Met Gly Val Gln Val Val
 -20 -15 -10
 40 Gly Arg Ala Phe Ala Arg Ala Leu Arg Gln Glu Phe Ala Ala Ser Arg
 -5 1 5 10
 Ala Ala Ala Asp Ala Arg Gly Arg Ala Gly His Arg Ser Ala Ala Ala
 15 20 25
 Ser Asn Leu Ser Gly Leu Ser Leu Gln Glu Ala Gln Gln Ile Leu Asn
 30 35 40
 45 Val Ser Lys Leu Ser Pro Glu Val Gln Lys Asn Tyr Glu His Leu
 45 50 55
 Phe Lys Val Asn Asp Lys Ser Val Gly Gly Ser Phe Tyr Leu Gln Ser
 60 65 70 75
 50 Lys Val Val Arg Ala Lys Glu Arg Leu Asp Glu Glu Leu Lys Ile Gln
 80 85 90
 Ala Gln Glu Asp Arg Glu Lys Gly Gln Met Pro His Thr
 95 100

55 <210> 349
 <211> 302
 <212> PRT
 <213> Homo sapiens

60 <220>
 <221> SIGNAL
 <222> -18...-1

<400> 349
 Met Ala Pro Asn Ser Ile Thr Leu Leu Gly Leu Ala Val Asn Val Val
 -15 -10 -5
 5 Thr Thr Leu Val Leu Ile Ser Tyr Cys Pro Thr Ala Thr Glu Glu Ala
 1 5 10
 Pro Tyr Trp Thr Tyr Leu Leu Cys Ala Leu Gly Leu Phe Ile Tyr Gln
 15 20 25 30
 Ser Leu Asp Ala Ile Asp Gly Lys Gln Ala Arg Arg Thr Asn Ser Cys
 35 40 45
 10 Ser Pro Leu Gly Glu Leu Phe Asp His Gly Cys Asp Ser Leu Ser Thr
 50 55 60
 Val Phe Met Ala Val Gly Ala Ser Ile Ala Ala Arg Leu Gly Thr Tyr
 65 70 75
 15 Pro Asp Trp Phe Phe Phe Cys Ser Phe Ile Gly Met Phe Val Phe Tyr
 80 85 90
 Cys Ala His Trp Gln Thr Tyr Val Ser Gly Met Leu Arg Phe Gly Lys
 95 100 105 110
 Val Asp Val Thr Glu Ile Gln Ile Ala Leu Val Ile Val Phe Val Leu
 115 120 125
 20 Ser Ala Phe Gly Gly Ala Thr Met Trp Asp Tyr Thr Gly Thr Ser Val
 130 135 140
 Leu Ser Pro Gly Leu His Ile Gly Leu Ile Ile Ile Leu Ala Ile Met
 145 150 155
 25 Ile Tyr Lys Lys Ser Ala Thr Asp Val Phe Glu Lys His Pro Cys Leu
 160 165 170
 Tyr Ile Leu Met Phe Gly Cys Val Phe Ala Lys Val Ser Gln Lys Leu
 175 180 185 190
 Val Val Ala His Met Thr Lys Ser Glu Leu Tyr Leu Gln Asp Thr Val
 195 200 205
 30 Phe Leu Gly Pro Gly Leu Leu Phe Leu Asp Gln Tyr Phe Asn Asn Phe
 210 215 220
 Ile Asp Glu Tyr Val Val Leu Trp Met Ala Met Val Ile Ser Ser Phe
 225 230 235
 35 Asp Met Val Ile Tyr Phe Ser Ala Leu Cys Leu Gln Ile Ser Arg His
 240 245 250
 Leu His Leu Asn Ile Phe Lys Thr Ala Cys His Gln Ala Pro Glu Gln
 255 260 265 270
 Val Gln Val Leu Ser Ser Lys Ser His Gln Asn Asn Met Asp
 275 280
 40
 <210> 350
 <211> 107
 <212> PRT
 <213> Homo sapiens
 45
 <220>
 <221> SIGNAL
 <222> -14...-1
 50 <400> 350
 Met Ile Leu Val Thr Val Pro Gly Val Cys Pro Ala Gln Cys Cys Trp
 -10 -5 1
 Ala Glu Gln Arg Gly Arg Gly Ser Gly Met Tyr Phe Ile Asp Lys Trp
 5 10 15
 55 Ala Arg Pro Ser Trp Val Pro His Trp Leu Asn Asp Leu Phe Ile Val
 20 25 30
 Lys Ser Gly Tyr Leu Val Cys Ile Arg Thr Thr Val Ile Arg Gln Gly
 35 40 45 50
 Ile Val Arg Ile Gly Arg Asn Lys Ile Ser Glu Ser Gly Arg Ser Ala
 55 60 65
 60 Leu Tyr Thr Ile Ala Lys Asn Lys Met Val Ile Phe Lys Val Pro Asp
 70 75 80
 Cys Met His Leu Asn Ala Asp Tyr Phe Gly Val

85

90

<210> 351
 <211> 229
 5 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 10 <222> -34...-1

<400> 351
 Met Ser Phe Leu Gln Asp Pro Ser Phe Phe Thr Met Gly Met Trp Ser
 -30 -25 -20
 15 Ile Gly Ala Gly Ala Leu Gly Ala Ala Ala Leu Ala Leu Leu Ala
 -15 -10 -5
 Asn Thr Asp Val Phe Leu Ser Lys Pro Gln Lys Ala Ala Leu Glu Tyr
 1 5 10
 Leu Glu Asp Ile Asp Leu Lys Thr Leu Glu Lys Glu Pro Arg Thr Phe
 20 15 20 25 30
 Lys Ala Lys Glu Leu Trp Glu Lys Asn Gly Ala Val Ile Met Ala Val
 35 40 45
 Arg Arg Pro Gly Cys Phe Leu Cys Arg Glu Glu Ala Ala Asp Leu Ser
 50 55 60
 25 Ser Leu Lys Ser Met Leu Asp Gln Leu Gly Val Pro Leu Tyr Ala Val
 65 70 75
 Val Lys Glu His Ile Arg Thr Glu Val Lys Asp Phe Gln Pro Tyr Phe
 80 85 90
 Lys Gly Glu Ile Phe Leu Asp Glu Lys Lys Lys Phe Tyr Gly Pro Gln
 30 95 100 105 110
 Arg Arg Lys Met Met Phe Met Gly Phe Ile Arg Leu Gly Val Trp Tyr
 115 120 125
 Asn Phe Phe Arg Ala Trp Asn Gly Gly Phe Ser Gly Asn Leu Glu Gly
 130 135 140
 35 Glu Gly Phe Ile Leu Gly Gly Val Phe Val Val Gly Ser Gly Lys Gln
 145 150 155
 Gly Ile Leu Leu Glu His Arg Glu Lys Glu Phe Gly Asp Lys Val Asn
 160 165 170
 Leu Leu Ser Val Leu Glu Ala Ala Lys Met Ile Lys Pro Gln Thr Leu
 40 175 180 185 190
 Ala Ser Glu Lys Lys
 195

<210> 352
 45 <211> 206
 <212> PRT
 <213> Homo sapiens

<220>
 50 <221> SIGNAL
 <222> -34...-1

<400> 352
 Met Ser Phe Leu Gln Asp Pro Ser Phe Phe Thr Met Gly Met Trp Ser
 55 -30 -25 -20
 Ile Gly Ala Gly Ala Leu Gly Ala Ala Ala Leu Ala Leu Leu Ala
 -15 -10 -5
 Asn Thr Asp Val Phe Leu Ser Lys Pro Gln Lys Ala Ala Leu Glu Tyr
 1 5 10
 60 Leu Glu Asp Ile Asp Leu Lys Thr Leu Glu Lys Glu Pro Arg Thr Phe
 15 20 25 30
 Lys Ala Lys Glu Leu Trp Glu Lys Asn Gly Ala Val Ile Met Ala Val
 35 40 45

Arg Arg Pro Gly Cys Phe Leu Cys Arg Glu Glu Ala Ala Asp Leu Ser
 50 55 60
 Ser Leu Lys Ser Met Leu Asp Gln Leu Gly Val Pro Leu Tyr Ala Val
 65 70 75
 5 Val Lys Glu His Ile Arg Thr Glu Val Lys Asp Phe Gln Pro Tyr Phe
 80 85 90
 Lys Gly Glu Ile Phe Leu Asp Glu Lys Lys Lys Phe Tyr Gly Pro Gln
 95 100 105 110
 Arg Arg Lys Met Met Phe Met Gly Phe Ile Arg Leu Gly Val Trp Tyr
 10 115 120 125
 Asn Phe Phe Arg Ala Trp Asn Gly Gly Phe Ser Gly Asn Leu Glu Gly
 130 135 140
 Glu Gly Phe Ile Leu Gly Gly Val Phe Val Val Gly Ser Gly Ser Arg
 145 150 155
 15 Ala Phe Phe Leu Ser Thr Glu Lys Lys Asn Leu Glu Thr Lys
 160 165 170

<210> 353

<211> 88

20 <212> PRT

<213> Homo sapiens

<220>

<221> SIGNAL

25 <222> -44...-1

<400> 353

Met Ala Ala Glu Gly Trp Ile Trp Arg Trp Gly Trp Gly Arg Arg Cys
 -40 -35 -30
 30 Leu Gly Arg Pro Gly Leu Leu Gly Pro Gly Pro Gly Pro Thr Thr Pro
 -25 -20 -15
 Leu Phe Leu Leu Leu Leu Leu Gly Ser Val Thr Ala Asp Ile Thr Asp
 -10 -5 1
 Gly Asn Ile Glu His Leu Lys Arg Glu His Ser Leu Ile Lys Pro Tyr
 35 5 10 15 20
 Gln Gly Val Gly Ser Ser Ser Pro Ser Gly Thr Ser Arg Ala Ala Leu
 25 30 35
 Cys Ser Arg Ala Ser Thr Tyr Val
 40

40

<210> 354

<211> 151

<212> PRT

<213> Homo sapiens

45

<220>

<221> SIGNAL

<222> -32...-1

50 <400> 354

Met Asp Ser Ala Ser Asn Pro Thr Asn Leu Val Ser Thr Ser Gln Arg
 -30 -25 -20
 His Arg Pro Leu Leu Ser Ser Cys Gly Leu Pro Pro Ser Thr Ala Ser
 -15 -10 -5
 55 Ala Val Arg Arg Leu Cys Ser Arg Gly Val Leu Lys Gly Ser Asn Glu
 1 5 10 15
 Arg Arg Asp Met Glu Ser Phe Trp Lys Leu Asn Arg Ser Pro Gly Ser
 20 25 30
 Asp Arg Tyr Leu Glu Ser Arg Asp Ala Ser Arg Leu Ser Gly Arg Asp
 60 35 40 45
 Pro Ser Ser Trp Thr Val Glu Asp Val Met Gln Phe Val Arg Glu Ala
 50 55 60
 Asp Pro Gln Leu Gly Pro His Ala Asp Leu Phe Arg Lys His Glu Ile

	65					70					75					80
	Asp	Gly	Lys	Ala	Leu	Leu	Leu	Leu	Arg	Ser	Asp	Met	Met	Met	Lys	Tyr
					85					90					95	
5	Met	Gly	Leu	Lys	Leu	Gly	Pro	Ala	Leu	Lys	Leu	Ser	Tyr	His	Ile	Asp
				100					105					110		
	Arg	Leu	Lys	Gln	Gly	Lys	Phe									
				115												
	<210>	355														
10	<211>	65														
	<212>	PRT														
	<213>	Homo sapiens														
	<220>															
15	<221>	SIGNAL														
	<222>	-16...-1														
	<400>	355														
20	Met	Ala	Glu	Leu	Ala	Cys	Val	Arg	Glu	Ser	Thr	Ser	Val	Ala	Trp	Ala
		-15					-10					-5				
	Cys	Lys	Val	Arg	Gly	Gly	Thr	Ala	Pro	Ser	Pro	Ser	Gly	Ala	Glu	Gly
	1				5					10					15	
	His	Val	Met	Leu	Asn	Lys	Ser	Arg	Glu	Val	Glu	Ser	Pro	Val	Ser	Ser
				20					25					30		
25	Arg	Pro	Arg	Cys	Gly	Met	Pro	Thr	Val	Pro	Pro	Gly	Ser	Leu	Lys	Thr
			35					40					45			
	Leu															
	<210>	356														
30	<211>	189														
	<212>	PRT														
	<213>	Homo sapiens														
	<220>															
35	<221>	SIGNAL														
	<222>	-24...-1														
	<220>															
	<221>	UNSURE														
40	<222>	41														
	<223>	Xaa = Ala,Gly														
	<400>	356														
45	Met	Glu	Glu	Gly	Gly	Asn	Leu	Gly	Gly	Leu	Ile	Lys	Met	Val	His	Leu
					-20					-15					-10	
	Leu	Val	Leu	Ser	Gly	Ala	Trp	Gly	Met	Gln	Met	Trp	Val	Thr	Phe	Val
				-5					1				5			
	Ser	Gly	Phe	Leu	Leu	Phe	Arg	Ser	Leu	Pro	Arg	His	Thr	Phe	Gly	Leu
		10					15					20				
50	Val	Gln	Ser	Lys	Leu	Phe	Pro	Phe	Tyr	Phe	His	Ile	Ser	Met	Gly	Cys
		25				30					35					40
	Xaa	Phe	Ile	Asn	Leu	Cys	Ile	Leu	Ala	Ser	Gln	His	Ala	Trp	Ala	Gln

His Gly Leu Ser Ser Leu Cys Asn Leu Gly Cys Val Leu Ser Asn Gly
 140 145 150
 Leu Cys Leu Ala Gly Leu Ala Leu Glu Ile Arg Ser Leu
 155 160 165

5

<210> 357
 <211> 183
 <212> PRT
 <213> Homo sapiens

10

<220>
 <221> SIGNAL
 <222> -47...-1

15

<400> 357
 Met Thr Glu Cys Thr Ser Leu Gln Phe Val Ser Pro Phe Ala Phe Glu
 -45 -40 -35
 Ala Met Gln Lys Val Asp Val Val Cys Leu Ala Ser Leu Ser Asp Pro
 -30 -25 -20

20

Glu Leu Arg Leu Leu Leu Pro Cys Leu Val Arg Met Ala Leu Cys Ala
 -15 -10 -5 1
 Pro Ala Asp Gln Ser Gln Ser Trp Ala Gln Asp Lys Lys Leu Ile Leu
 5 10 15

25

Arg Leu Leu Ser Gly Val Glu Ala Val Asn Ser Ile Val Ala Leu Leu
 20 25 30
 Ser Val Asp Phe His Ala Leu Glu Gln Asp Ala Ser Lys Glu Gln Gln
 35 40 45
 Leu Arg Pro Ser Leu Ala Leu Leu Pro Arg Leu Glu Cys Gly Gly Val
 50 55 60 65

30

Ile Ser Ala His Cys Asn Leu His Leu Leu Gly Ser Ser Asp Ser Ser
 70 75 80
 Ala Ser Val Ser Arg Val Asp Gly Thr Thr Gly Thr Arg His His Ala
 85 90 95

35

Arg Leu Phe Cys Ile Ile Ser Arg Asp Glu Val Ser Pro Tyr Trp Pro
 100 105 110
 Gly Trp Ser Arg Thr Pro Asn Leu Val Ile His Leu Pro Gln Pro Pro
 115 120 125
 Lys Val Leu Gly Leu Pro Ala
 130 135

40

<210> 358
 <211> 102
 <212> PRT
 <213> Homo sapiens

45

<220>
 <221> SIGNAL
 <222> -14...-1

50

<400> 358
 Met Phe Leu Thr Ala Leu Leu Trp Arg Gly Arg Ile Pro Gly Arg Gln
 -10 -5 1
 Trp Ile Gly Lys His Arg Arg Pro Arg Phe Val Ser Leu Arg Ala Lys
 5 10 15

55

Gln Asn Met Ile Arg Arg Leu Glu Ile Glu Ala Glu Arg Gly His Ala Ala
 20 25 30 35 40 45 50
 Val Arg Arg Arg Glu Ala Phe Glu Ala Ile Lys Ala Ala Ala Thr Ser
 55 60 65

60

Lys Phe Pro Pro His Arg Phe Ile Ala Asp Gln Leu Asp His Leu Asn
 70 75 80
 Val Thr Lys Lys Trp Ser

85

<210> 359
 <211> 244
 5 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 10 <222> -29...-1

<400> 359
 Met Glu Leu Thr Ile Phe Ile Leu Arg Leu Ala Ile Tyr Ile Leu Thr
 -25 -20 -15
 15 Phe Pro Leu Tyr Leu Leu Asn Phe Leu Gly Leu Trp Ser Trp Ile Cys
 -10 -5 1
 Lys Lys Trp Phe Pro Tyr Phe Leu Val Arg Phe Thr Val Ile Tyr Asn
 5 10 15
 Glu Gln Met Ala Ser Lys Lys Arg Glu Leu Phe Ser Asn Leu Gln Glu
 20 20 25 30 35
 Phe Ala Gly Pro Ser Gly Lys Leu Ser Leu Leu Glu Val Gly Cys Gly
 40 45 50
 Thr Gly Ala Asn Phe Lys Phe Tyr Pro Pro Gly Cys Arg Val Thr Cys
 55 60 65
 25 Ile Asp Pro Asn Pro Asn Phe Glu Lys Phe Leu Ile Lys Ser Ile Ala
 70 75 80
 Glu Asn Arg His Leu Gln Phe Glu Arg Phe Val Val Ala Ala Gly Glu
 85 90 95
 Asn Met His Gln Val Ala Asp Gly Ser Val Asp Val Val Val Cys Thr
 30 100 105 110 115
 Leu Val Leu Cys Ser Val Lys Asn Gln Glu Arg Ile Leu Arg Glu Val
 120 125 130
 Cys Arg Val Leu Arg Pro Gly Gly Ala Phe Tyr Phe Met Glu His Val
 135 140 145
 35 Ala Ala Glu Cys Ser Thr Trp Asn Tyr Phe Trp Gln Gln Val Leu Asp
 150 155 160
 Pro Ala Trp His Leu Leu Phe Asp Gly Cys Asn Leu Thr Arg Glu Ser
 165 170 175
 Trp Lys Ala Leu Glu Arg Ala Ser Phe Ser Lys Leu Lys Leu Gln His
 40 180 185 190 195
 Ile Gln Ala Pro Leu Ser Trp Glu Leu Val Arg Pro His Ile Tyr Gly
 200 205 210
 Tyr Ala Val Lys
 215

45
 <210> 360
 <211> 177
 <212> PRT
 <213> Homo sapiens

50
 <220>
 <221> SIGNAL
 <222> -23...-1

55 <400> 360
 Met Ser Asn Gln Arg Leu Pro Leu Ile Phe Ser Leu Leu Phe Ile Cys
 -20 -15 -10
 Phe Phe Gly Glu Ser Phe Cys Ile Cys Asp Gly Thr Val Trp Thr Lys
 -5 1 5
 60 Val Gly Trp Glu Ile Leu Pro Glu Glu Val His Tyr Trp Lys Val Lys
 10 15 20 25
 Gly Ser Pro Ser His Cys Leu Pro Tyr Leu Leu Asp Lys Leu Cys Cys
 30 35 40

Asp Phe Ala Asn Met Asp Ile Phe Gln Gly Cys Leu Tyr Leu Ile Tyr
 45 50 55
 Asn Leu Leu Gln Ala Val Phe Phe Val Leu Phe Val Leu Ser Val His
 60 65 70
 5 Tyr Leu Trp Lys Lys Trp Lys Lys His Gln Lys Lys Leu Lys Lys Gln
 75 80 85
 Ala Ser Leu Glu Lys Pro Gly Asn Asp Leu Glu Ser Pro Leu Ile Asn
 90 95 100 105
 10 Asn Ile Asp Gln Thr Leu His Arg Val Ala Thr Thr Ala Ser Val Ile
 110 115 120
 Tyr Lys Ile Trp Glu His Arg Ser His His Pro Ser Ser Lys Lys Ile
 125 130 135
 Lys His Cys Lys Leu Lys Lys Lys Ser Lys Glu Glu Gly Ala Arg Arg
 140 145 150
 15 Tyr

 <210> 361
 <211> 158
 <212> PRT
 20 <213> Homo sapiens

 <220>
 <221> SIGNAL
 <222> -21...-1
 25
 <400> 361
 Met Ala Leu Cys Ala Leu Thr Arg Ala Leu Pro Ser Leu Asn Leu Ala
 -20 -15 -10
 30 Pro Pro Thr Val Ala Ala Pro Ala Pro Ser Leu Phe Pro Ala Ala Gln
 -5 1 5 10
 Met Met Asn Asn Gly Leu Leu Gln Gln Pro Ser Ala Leu Met Leu Leu
 15 20 25
 Pro Cys Arg Pro Val Leu Thr Ser Val Ala Leu Asn Ala Asn Phe Val
 30 35 40
 35 Ser Trp Lys Ser Arg Thr Lys Tyr Thr Ile Thr Pro Val Lys Met Arg
 45 50 55
 Lys Ser Gly Gly Arg Asp His Thr Gly Ala Gly Asn Val Arg Arg Thr
 60 65 70 75
 40 Val Gly Arg Val Ser Asn Val Asp His Asn Lys Arg Val Ile Gly Lys
 80 85 90
 Ala Gly Arg Asn Arg Trp Leu Gly Lys Arg Pro Asn Ser Gly Arg Trp
 95 100 105
 His Arg Lys Gly Gly Trp Ala Gly Arg Lys Ile Arg Pro Leu Pro Pro
 110 115 120
 45 Met Lys Ser Tyr Val Lys Leu Pro Ser Ala Ser Ala Gln Ser
 125 130 135

 <210> 362
 <211> 186
 50 <212> PRT
 <213> Homo sapiens

 <220>
 <221> SIGNAL
 55 <222> -19...-1

 <400> 362
 Met Ala Thr Ala Ser Pro Ser Val Phe Leu Leu Met Val Asn Gly Gln
 -15 -10 -5
 60 Val Glu Ser Ala Gln Phe Pro Glu Tyr Asp Asp Leu Tyr Cys Lys Tyr
 1 5 10
 Cys Phe Val Tyr Gly Gln Asp Trp Ala Pro Thr Ala Gly Leu Glu Glu
 15 20 25

Gly Ile Ser Gln Ile Thr Ser Lys Ser Gln Asp Val Arg Gln Ala Leu
 30 35 40 45
 Val Trp Asn Phe Pro Ile Asp Val Thr Phe Lys Ser Thr Asn Pro Tyr
 50 55 60
 5 Gly Trp Pro Gln Ile Val Leu Ser Val Tyr Gly Pro Asp Val Phe Gly
 65 70 75
 Asn Asp Val Val Arg Gly Tyr Gly Ala Val His Val Pro Phe Ser Pro
 80 85 90
 10 Gly Arg His Lys Arg Thr Ile Pro Met Phe Val Pro Glu Ser Thr Ser
 95 100 105
 Lys Leu Gln Lys Phe Thr Ser Trp Phe Met Gly Arg Arg Pro Glu Tyr
 110 115 120 125
 Thr Asp Pro Lys Val Val Ala Gln Gly Glu Gly Arg Glu Ala Ile Thr
 130 135 140
 15 Ala Pro Arg Lys Ala Val Phe Ser Val His Gly Leu Thr Ser Pro Arg
 145 150 155
 Ala Leu Ala Leu Val His Ile Lys Gly Thr
 160 165

 20 <210> 363
 <211> 150
 <212> PRT
 <213> Homo sapiens

 25 <220>
 <221> SIGNAL
 <222> -47...-1

 <400> 363
 30 Met Gly Asp Arg Val Lys Gly Ser Lys Ser Arg Ala Phe Val Ser Pro
 -45 -40 -35
 Trp Pro His Thr Pro Met Ala Ser Gly Leu Arg Asp Pro Trp Leu Gln
 -30 -25 -20
 Pro Thr Ala Leu Gly Leu Ala Leu Cys Ser Thr Lys Ala Leu Ser Val
 35 -15 -10 -5 1
 Gly Ser Ala Pro Leu Pro Pro Arg Asn Ser Asn Thr Met Ala Ala Ala
 5 10 15
 Ala Leu Ala Ala Pro Ser Leu Gly Phe Asp Gly Val Ile Gly Val Leu
 20 25 30
 40 Val Ala Asp Thr Ser Leu Thr Asp Met His Val Val Asp Val Glu Leu
 35 40 45
 Ser Gly Pro Arg Gly Pro Thr Gly Arg Ser Phe Ala Val His Thr Arg
 50 55 60 65
 Arg Glu Asn Pro Ala Glu Pro Gly Ala Val Thr Gly Ser Ala Thr Val
 45 70 75 80
 Thr Ala Phe Trp Arg Ser Leu Leu Ala Cys Cys Gln Leu Pro Ser Arg
 85 90 95
 Pro Gly Ile His Leu Cys
 100

 50 <210> 364
 <211> 95
 <212> PRT
 <213> Homo sapiens

 55 <220>
 <221> SIGNAL
 <222> -45...-1

 <400> 364
 60 Met Leu His His Val Ile Thr Ala Gly Pro Val Leu Leu Leu His Leu
 -45 -40 -35 -30
 Pro Arg Pro Asp Thr Ser Thr Arg Leu Leu Leu Thr Ser Val Ser Ala

-25 -20 -15
 Phe Ile Leu Leu Leu Leu Leu Ser Gly Pro Ala Glu Met Ser Ala Ser
 -10 -5 1
 5 Gln Glu Ser Phe Pro Gly Ser Leu Gln Gln Glu Ile Ala Ser Leu Ile
 5 10 15
 Thr Val Ala Leu Gly Ser Leu Ile Ser Leu Ser Cys Ser Thr Leu Leu
 20 25 30 35
 Tyr Phe Ser Cys Glu Leu Lys Ile Pro Cys Glu Asp Val Asn Leu
 40 45 50
 10
 <210> 365
 <211> 94
 <212> PRT
 <213> Homo sapiens
 15
 <220>
 <221> SIGNAL
 <222> -26...-1
 20 <400> 365
 Met Ala Ala Ile Glu Ile Glu Val Lys Pro Asn Gln Gly Phe Cys Gly
 -25 -20 -15
 Ser Ala Cys Leu Leu Ala Val Ile Arg Ala Phe Phe Phe Lys Lys Asn
 -10 -5 1 5
 25 Ala Cys Leu Leu Arg Glu Ile Leu Gln Ser Lys Leu Gly Gly Met Gly
 10 15 20
 Pro Val Val Phe Ser Tyr Arg Gly Leu Pro Leu Trp Leu Phe Ala Trp
 25 30 35
 Leu Phe Pro Arg Cys Thr Val Pro Leu Thr Phe Gly Phe Glu Asn Met
 30 40 45 50
 Arg Gly Leu Gly Val Val Ala Tyr Ala Cys Asn Pro Ser Thr
 55 60 65
 <210> 366
 35 <211> 140
 <212> PRT
 <213> Homo sapiens
 <220>
 40 <221> SIGNAL
 <222> -40...-1
 <400> 366
 45 Met Thr Ser Met Thr Gln Ser Leu Arg Glu Val Ile Lys Ala Met Thr
 -40 -35 -30 -25
 Lys Ala Arg Asn Phe Glu Arg Val Leu Gly Lys Ile Thr Leu Val Ser
 -20 -15 -10
 Ala Ala Pro Gly Lys Val Ile Cys Glu Met Lys Val Glu Glu His
 -5 1 5
 50 Thr Asn Ala Ile Gly Thr Leu His Gly Gly Leu Thr Ala Thr Leu Val
 10 15 20
 Asp Asn Ile Ser Thr Met Ala Leu Leu Cys Thr Glu Arg Gly Ala Pro
 25 30 35 40
 Gly Val Ser Val Asp Met Asn Ile Thr Tyr Met Ser Pro Ala Lys Leu
 55 45 50 55
 Gly Glu Asp Ile Val Ile Thr Ala His Val Leu Lys Gln Gly Lys Thr
 60 65 70
 Leu Ala Phe Thr Ser Val Asp Leu Thr Asn Lys Ala Thr Gly Lys Leu
 75 80 85
 60 Ile Ala Gln Gly Arg His Thr Lys His Leu Gly Asn
 90 95 100
 <210> 367

<211> 39
 <212> PRT
 <213> Homo sapiens

5 <220>
 <221> SIGNAL
 <222> -35...-1

<400> 367
 10 Met Asp Pro Gly Trp Pro His Phe Lys Leu Thr His Ser Arg Cys Met
 -35 -30 -25 -20
 Ala Val Leu Phe Leu Gly Thr Leu Pro Leu Cys Pro Val Thr Ser Pro
 -15 -10 -5
 Val Trp Gly Trp Ser Pro Gly
 15 1

<210> 368
 <211> 78
 <212> PRT
 20 <213> Homo sapiens

<220>
 <221> SIGNAL
 <222> -41...-1

25 <400> 368
 Met Ser Ala Ser Val Val Ser Val Ile Ser Arg Phe Leu Glu Glu Tyr
 -40 -35 -30
 Leu Ser Ser Thr Pro Gln Arg Leu Lys Leu Leu Asp Ala Tyr Leu Leu
 30 -25 -20 -15 -10
 Tyr Ile Leu Leu Thr Gly Ala Leu Gln Phe Gly Tyr Cys Leu Leu Val
 -5 1 5
 Gly Thr Phe Pro Phe Asn Ser Phe Leu Ser Gly Phe Ile Ser Cys Val
 10 15 20
 35 Gly Ser Phe Ile Leu Ala Gly Ser Leu Phe Glu Phe Pro Gly
 25 30 35

<210> 369
 <211> 83
 40 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 45 <222> -40...-1

<400> 369
 Met Gly Leu Thr Ser Thr Trp Arg Tyr Gly Arg Gly Pro Gly Ile Gly
 -40 -35 -30 -25
 50 Thr Val Thr Met Val Ser Trp Gly Arg Phe Ile Cys Leu Val Val Val
 -20 -15 -10
 Thr Met Ala Thr Leu Ser Leu Ala Arg Pro Ser Phe Ser Leu Val Glu
 -5 1 5
 Asp Thr Thr Leu Glu Pro Glu Asp Ala Ile Ser Ser Gly Asp Asp Glu
 55 10 15 20
 Asp Asp Thr Asp Gly Ala Glu Asp Phe Val Ser Glu Asn Ser Asn Asn
 25 30 35 40
 Lys Ser Lys

60 <210> 370
 <211> 92
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SIGNAL
 <222> -15...-1
 5
 <400> 370
 Met Ala Val Leu Ala Gly Ser Leu Leu Gly Pro Thr Ser Arg Ser Ala
 -15 -10 -5 1
 Ala Leu Leu Gly Gly Arg Trp Leu Gln Pro Arg Ala Trp Leu Gly Phe
 10 5 10 15
 Pro Asp Ala Trp Gly Leu Pro Thr Pro Gln Gln Ala Arg Gly Lys Ala
 20 25 30
 Arg Gly Asn Glu Tyr Gln Pro Ser Asn Ile Lys Arg Lys Asn Lys His
 35 40 45
 15 Gly Trp Val Arg Arg Leu Ser Thr Pro Ala Gly Val Gln Val Ile Leu
 50 55 60 65
 Arg Arg Met Leu Lys Gly Arg Lys Ser Leu Ser His
 70 75
 20 <210> 371
 <211> 279
 <212> PRT
 <213> Homo sapiens
 25 <220>
 <221> SIGNAL
 <222> -42...-1
 <400> 371
 30 Met Ala Ala Pro Val Arg Arg Thr Leu Leu Gly Val Ala Gly Gly Trp
 -40 -35 -30
 Arg Arg Phe Glu Arg Leu Trp Ala Gly Ser Leu Ser Ser Arg Ser Leu
 -25 -20 -15
 Ala Leu Ala Ala Ala Pro Ser Ser Asn Gly Ser Pro Trp Arg Leu Leu
 35 -10 -5 1 5
 Gly Ala Leu Cys Leu Gln Arg Pro Pro Val Val Ser Lys Pro Leu Thr
 10 15 20
 Pro Leu Gln Glu Glu Met Ala Ser Leu Leu Gln Gln Ile Glu Ile Glu
 25 30 35
 40 Arg Ser Leu Tyr Ser Asp His Glu Leu Arg Ala Leu Asp Glu Asn Gln
 40 45 50
 Arg Leu Ala Lys Lys Lys Ala Asp Leu His Asp Glu Glu Asp Glu Gln
 55 60 65 70
 Asp Ile Leu Leu Ala Gln Asp Leu Glu Asp Met Trp Glu Gln Lys Phe
 45 75 80 85
 Leu Gln Phe Lys Leu Gly Ala Arg Ile Thr Glu Ala Asp Glu Lys Asn
 90 95 100
 Asp Arg Thr Ser Leu Asn Arg Asn Leu Asp Arg Asn Leu Val Leu Leu
 105 110 115
 50 Val Arg Glu Lys Phe Gly Asp Gln Asp Val Trp Ile Leu Pro Gln Ala
 120 125 130
 Glu Trp Gln Pro Gly Glu Thr Leu Arg Gly Thr Ala Glu Arg Thr Leu
 135 140 145 150
 Ala Thr Leu Ser Glu Asn Asn Met Glu Ala Lys Phe Leu Gly Asn Ala
 55 155 160 165
 Pro Cys Gly His Tyr Thr Phe Lys Phe Pro Gln Ala Met Arg Thr Glu
 170 175 180
 Ser Asn Leu Gly Ala Lys Val Phe Phe Phe Lys Ala Leu Leu Leu Thr
 185 190 195
 60 Gly Asp Phe Ser Gln Ala Gly Asn Lys Gly His His Val Trp Val Ile
 200 205 210
 Lys Asp Glu Leu Gly Asp Tyr Leu Lys Pro Lys Tyr Leu Ala Gln Val
 215 220 225 230

Arg Arg Phe Val Ser Asp Leu
235

<210> 372
5 <211> 184
<212> PRT
<213> Homo sapiens

<220>
10 <221> SIGNAL
<222> -31...-1

<400> 372
15 Met Ala Cys Thr Thr Thr Ala Pro Ala Gln Glu His Met Leu Leu Thr
-30 -25 -20
Pro Leu Thr Ala Leu Met Val Gly Ala Ala Ser Leu Leu Glu Gly Arg
-15 -10 -5 1
Pro Gln Ile Ser Ala Pro Tyr Ser Arg Ala Ala Cys Cys Ser Pro Gly
5 10 15
20 Ala Leu Gly Cys Pro Ala Ala Arg Val Gly Ile Leu Asp Leu Met Tyr
20 25 30
Ser Trp Val Ala Arg Lys Val Leu Arg Cys Ser Asn Thr Gly Leu Gln
35 40 45
Gly Leu His Cys Ala Pro Ala Tyr Ala Ala Gln Leu Gly Met Asp Pro
25 50 55 60 65
Gly Arg Gly Gln Arg Ala Gly Gly Pro Val Glu Gln Thr Tyr Phe Ser
70 75 80
Pro Met Gly Lys Leu Pro Thr Leu Ser Trp Leu Glu Gly Cys Thr Ala
85 90 95
30 Val Met Thr Leu Ala Ser Ala Trp Leu Leu Gly Ser Pro Arg Glu Thr
100 105 110
Tyr Asn His Glu Lys Val Lys Glu Lys Gln Cys Pro Phe Ser Ser Met
115 120 125
Val Leu Gly Glu Tyr Gly Phe Leu Pro Thr Val Asp His Leu Ser Thr
35 130 135 140 145
Leu Gly Cys Asn Met Arg Glu Leu
150

<210> 373
40 <211> 101
<212> PRT
<213> Homo sapiens

<220>
45 <221> SIGNAL
<222> -42...-1

<400> 373
50 Met Ala His Val Ala Glu Lys Asp Gly Leu Asp Trp Ala Ser Gly Cys
-40 -35 -30
Ile Pro Gly Leu Gln Thr Gly Ile Cys Leu Phe Gly Ser Gln Leu Cys
-25 -20 -15
Phe His Leu Ser Trp Leu Tyr Ser Trp Ala Ser Gln Cys Gly Pro Thr
-10 -5 1 5
55 Ala Pro Val Ile Asp Lys Lys Ser Ser Pro Leu Leu Thr Glu Leu Leu
10 15 20
Asp Leu Val Leu Ile Gly Pro Asp Glu Glu Gly Ile Gln Pro Gln Val
25 30 35
Ile Ile Val Ala Arg Lys Met Glu Tyr Thr Lys Trp Thr Gly Leu Ala
60 40 45 50
Cys Thr His Arg Asp
55

<210> 374
 <211> 85
 <212> PRT
 <213> Homo sapiens
 5
 <220>
 <221> SIGNAL
 <222> -20...-1
 10 <400> 374
 Met Gly Pro Asn Thr Lys Asn Leu Leu Leu Val Thr Leu Val Ala Ser
 -20 -15 -10 -5
 Thr Val Pro Gly Asn Ser Leu Gly Gln Asp Phe Thr Phe Ala His Leu
 1 5 10
 15 Glu Arg Ser Cys Thr Arg Glu Asn Arg Ser Pro Gly Glu Val Phe Gln
 15 20 25
 Gln Pro Cys Lys Ser Gly Gly Gly Gly Val Gly Glu Pro Asn Ala Gln
 30 35 40
 Gly Gln Leu Leu Ser Gln His Pro Leu Pro Ala Phe Ile Asn Cys Ser
 20 45 50 55 60
 His Gly Gln Ala Phe
 65
 <210> 375
 25 <211> 90
 <212> PRT
 <213> Homo sapiens
 <220>
 30 <221> SIGNAL
 <222> -28...-1
 <400> 375
 Met Ala Phe Pro Gly Gln Ser Asp Thr Lys Met Gln Trp Pro Glu Val
 35 -25 -20 -15
 Pro Ala Leu Pro Leu Leu Ser Ser Leu Cys Met Ala Met Val Arg Lys
 -10 -5 1
 Ser Ser Ala Leu Gly Lys Glu Val Gly Arg Arg Val Lys Glu Met Val
 5 10 15 20
 40 Met Leu Val Ala Pro Phe Arg Gln Ser Ser Ser Leu Ser Arg Thr Phe
 25 30 35
 Ser Ser Arg Lys Val Val Lys Ala His Ala Ser Leu His Gly Ala Arg
 40 45 50
 Leu Ser Pro Leu Ser Arg Asn Ile Arg Gly
 45 55 60
 <210> 376
 <211> 89
 <212> PRT
 50 <213> Homo sapiens
 <220>
 <221> SIGNAL
 <222> -33...-1
 55 <220>
 <221> UNSURE
 <222> 47
 <223> Xaa = Ala,Pro,Ser,Thr
 60 <400> 376
 Met Ala Gln Pro Ala Ala Pro Ser Leu Thr Arg Pro Phe Leu Ala Glu
 -30 -25 -20

Ala Pro Thr Ala Leu Val Pro His Ser Pro Leu Pro Gly Ala Leu Ser
 -15 -10 -5
 Ser Ala Pro Gly Pro Lys Gln Pro Pro Thr Ala Ser Thr Gly Pro Glu
 1 5 10 15
 5 Leu Leu Leu Leu Pro Leu Ser Ser Phe Met Pro Cys Gly Ala Ala Ala
 20 25 30
 Pro Ala Arg Val Ser Ser Gln Arg Ala Thr Pro Arg Asp Lys Pro Xaa
 35 40 45
 Gly Pro Leu Ile Pro Gly Gln Cys Pro
 10 50 55

 <210> 377
 <211> 132
 <212> PRT
 15 <213> Homo sapiens

 <220>
 <221> SIGNAL
 <222> -15...-1
 20
 <400> 377
 Met Asn Arg Val Leu Cys Ala Pro Ala Ala Gly Ala Val Arg Ala Leu
 -15 -10 -5 1
 Arg Leu Ile Gly Trp Ala Ser Arg Ser Leu His Pro Leu Pro Gly Ser
 5 10 15
 25 Arg Asp Arg Ala His Pro Ala Ala Glu Glu Glu Asp Asp Pro Asp Arg
 20 25 30
 Pro Ile Glu Phe Ser Ser Ser Lys Ala Asn Pro His Arg Trp Ser Val
 35 40 45
 30 Gly His Thr Met Gly Lys Gly His Gln Arg Pro Trp Trp Lys Val Leu
 50 55 60 65
 Pro Leu Ser Cys Phe Leu Val Ala Leu Ile Ile Trp Cys Tyr Leu Arg
 70 75 80
 Glu Glu Ser Glu Ala Asp Gln Trp Leu Arg Gln Val Trp Gly Glu Val
 85 90 95
 35 Pro Glu Pro Ser Asp Arg Ser Glu Glu Pro Glu Thr Pro Ala Ala Tyr
 100 105 110
 Arg Ala Arg Thr
 115
 40
 <210> 378
 <211> 102
 <212> PRT
 <213> Homo sapiens
 45
 <220>
 <221> SIGNAL
 <222> -14...-1
 50
 <220>
 <221> UNSURE
 <222> 50
 <223> Xaa = Ala,Gly
 55
 <220>
 <221> UNSURE
 <222> 51
 <223> Xaa = Leu,Met,Val
 60
 <400> 378
 Met Phe Leu Thr Ala Leu Leu Trp Arg Gly Arg Ile Pro Gly Arg Gln
 -10 -5 1
 Trp Ile Gly Lys His Arg Arg Pro Arg Phe Val Ser Leu Arg Ala Lys

5
 Gln Asn Met Ile Arg Arg Leu Glu Ile Asp Ala Glu Asn His Tyr Trp
 20 25 30
 5 Leu Ser Met Pro Tyr Met Thr Arg Glu Gln Glu Arg Gly His Ala Xaa
 35 40 45 50
 Xaa Arg Arg Arg Glu Ala Phe Glu Ala Ile Lys Ala Ala Ala Thr Ser
 55 60 65
 Lys Phe Pro Pro His Arg Phe Ile Ala Asp Gln Leu Asp His Leu Asn
 70 75 80
 10 Val Thr Lys Lys Trp Ser
 85
 <210> 379
 <211> 504
 15 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SIGNAL
 20 <222> -24...-1
 <400> 379
 Met Gly Ile Lys Thr Ala Leu Pro Ala Ala Glu Leu Gly Leu Tyr Ser
 -20 -15 -10
 25 Leu Val Leu Ser Gly Ala Leu Ala Tyr Ala Gly Arg Gly Leu Leu Glu
 -5 1 5
 Ala Ser Gln Asp Gly Ala His Arg Lys Ala Phe Arg Glu Ser Val Arg
 10 15 20
 Pro Gly Trp Glu Tyr Ile Gly Arg Lys Met Asp Val Ala Asp Phe Glu
 25 30 35 40
 Trp Val Met Trp Phe Thr Ser Phe Arg Asn Val Ile Ile Phe Ala Leu
 45 50 55
 Ser Gly His Val Leu Phe Ala Lys Leu Cys Thr Met Val Ala Pro Lys
 60 65 70
 35 Leu Arg Ser Trp Met Tyr Ala Val Tyr Gly Ala Leu Ala Val Met Gly
 75 80 85
 Thr Met Gly Pro Trp Tyr Leu Leu Leu Leu Leu Gly His Cys Val Gly
 90 95 100
 40 Leu Tyr Val Ala Ser Leu Leu Gly Gln Pro Trp Leu Cys Leu Gly Leu
 105 110 115 120
 Gly Leu Ala Ser Leu Ala Ser Phe Lys Met Asp Pro Leu Ile Ser Trp
 125 130 135
 Gln Ser Gly Phe Val Thr Gly Thr Phe Asp Leu Gln Glu Val Leu Phe
 140 145 150
 45 His Gly Gly Ser Ser Phe Thr Val Leu Arg Cys Thr Ser Phe Ala Leu
 155 160 165
 Glu Ser Cys Ala His Pro Asp Arg His Tyr Ser Leu Ala Asp Leu Leu
 170 175 180
 Lys Tyr Ser Phe Tyr Leu Pro Phe Phe Phe Phe Gly Pro Ile Met Thr
 185 190 195 200
 50 Phe Asp Arg Phe His Ala Gln Val Ser Gln Val Glu Pro Val Arg Arg
 205 210 215
 Glu Gly Glu Leu Trp His Ile Arg Ala Gln Ala Gly Leu Ser Val Val
 220 225 230
 55 Ala Ile Met Ala Val Asp Ile Phe Phe His Phe Phe Tyr Ile Leu Thr
 235 240 245
 Ile Pro Ser Asp Leu Lys Phe Ala Asn Arg Leu Pro Asp Ile Ala Leu
 250 255 260
 Ala Gly Leu Ala Tyr Ser Asn Leu Val Tyr Asp Trp Val Lys Ala Ala
 265 270 275 280
 60 Val Leu Phe Gly Val Val Asn Thr Val Ala Cys Leu Asp His Leu Asp
 285 290 295
 Pro Pro Gln Pro Pro Lys Cys Ile Thr Ala Leu Tyr Val Phe Ala Glu

300 305 310
 Thr His Phe Asp Arg Gly Ile Asn Asp Trp Leu Cys Lys Tyr Val Tyr
 315 320 325
 5 Asn His Ile Gly Gly Glu His Ser Ala Val Ile Pro Glu Leu Ala Ala
 330 335 340
 Thr Val Ala Thr Phe Ala Ile Thr Thr Leu Trp Leu Gly Pro Cys Asp
 345 350 355 360
 Ile Val Tyr Leu Trp Ser Phe Leu Asn Cys Phe Gly Leu Asn Phe Glu
 365 370 375
 10 Leu Trp Met Gln Lys Leu Ala Glu Trp Gly Pro Leu Ala Arg Ile Glu
 380 385 390
 Ala Ser Leu Ser Val Gln Met Ser Arg Arg Val Arg Ala Leu Phe Gly
 395 400 405
 15 Ala Met Asn Phe Trp Ala Ile Ile Met Tyr Asn Leu Val Ser Leu Asn
 410 415 420
 Ser Leu Lys Phe Thr Glu Leu Val Ala Arg Arg Leu Leu Leu Thr Gly
 425 430 435 440
 Phe Pro Gln Thr Thr Leu Ser Ile Leu Phe Val Thr Tyr Cys Gly Val
 445 450 455
 20 Gln Leu Val Lys Glu Arg Glu Arg Thr Leu Ala Leu Glu Glu Glu Gln
 460 465 470
 Lys Gln Asp Lys Glu Lys Pro Glu
 475 480

 25 <210> 380
 <211> 152
 <212> PRT
 <213> Homo sapiens

 30 <220>
 <221> SIGNAL
 <222> -26...-1

 <400> 380
 35 Met Val Thr Phe Pro Asp Val Pro Leu Gly Ile Phe Leu Phe Cys Val
 -25 -20 -15
 Cys Val Ile Ala Ile Gly Val Val Gln Ala Leu Ile Val Gly Tyr Ala
 -10 -5 1 5
 Phe His Phe Pro His Leu Leu Ser Pro Gln Ile Gln Arg Ser Ala His
 40 10 15 20
 Arg Ala Leu Tyr Arg Arg His Val Leu Gly Ile Val Leu Gln Gly Pro
 25 30 35
 Ala Leu Cys Phe Ala Ala Ala Ile Phe Ser Leu Phe Phe Val Pro Leu
 40 45 50
 45 Ser Tyr Leu Leu Met Val Thr Val Ile Leu Leu Pro Tyr Val Ser Lys
 55 60 65 70
 Val Thr Gly Trp Cys Arg Asp Arg Leu Leu Gly His Arg Glu Pro Ser
 75 80 85
 Ala His Pro Val Glu Val Phe Ser Phe Asp Leu His Glu Pro Leu Ser
 50 90 95 100
 Lys Glu Arg Val Glu Ala Phe Ser Asp Gly Val Tyr Ala Ile Val Ala
 105 110 115
 Thr Leu Leu Ile Leu Asp Ile Trp
 120 125

 55 <210> 381
 <211> 51
 <212> PRT
 <213> Homo sapiens

 60 <220>
 <221> SIGNAL
 <222> -26...-1

<400> 381
 Met Glu Met Leu Phe Asp Glu Arg Ala Pro Leu Leu Phe Ile Leu Phe
 -25 -20 -15
 5 Lys Phe Ser Leu Cys Pro Tyr Ala Ala Ala Leu Ser Lys Pro Ile Phe
 -10 -5 1 5
 Gly Ser Val Ala Cys Met Thr Lys Glu Ile Leu Ala Arg His Gly Gly
 10 15 20
 Ser Arg Leu
 10 25

 <210> 382
 <211> 72
 <212> PRT
 15 <213> Homo sapiens

 <220>
 <221> SIGNAL
 <222> -23...-1
 20
 <400> 382
 Met Leu Arg Pro Ala Leu Pro Trp Leu Tyr Leu Gly Leu Cys Ser Leu
 -20 -15 -10
 25 Leu Val Gly Glu Ala Glu Ala Pro Ser Pro Val Asp Pro Leu Glu Arg
 -5 1 5
 Ser Arg Pro Tyr Ala Val Leu Arg Gly Gln Asn Leu Val Leu Met Gly
 10 15 20 25
 Thr Ile Phe Ser Ile Leu Leu Val Thr Val Ile Leu Met Ala Phe Cys
 30 35 40
 30 Val Tyr Lys Pro Ile Arg Arg Arg
 45

 <210> 383
 <211> 95
 35 <212> PRT
 <213> Homo sapiens

 <220>
 <221> SIGNAL
 40 <222> -48...-1

 <400> 383
 Met Ala Ser Ser His Trp Asn Glu Thr Thr Thr Ser Val Tyr Gln Tyr
 -45 -40 -35
 45 Leu Gly Phe Gln Val Gln Lys Ile Tyr Pro Phe His Asp Asn Trp Asn
 -30 -25 -20
 Thr Ala Cys Phe Val Ile Leu Leu Phe Ile Phe Thr Val Val Ser
 -15 -10 -5
 Leu Val Val Leu Ala Phe Leu Tyr Glu Val Leu Asp Cys Cys Cys Cys
 50 1 5 10 15
 Val Lys Asn Lys Thr Val Lys Asp Leu Lys Ser Glu Pro Asn Pro Leu
 20 25 30
 Arg Ser Met Met Asp Asn Ile Arg Lys Arg Glu Thr Glu Val Val
 35 40 45
 55
 <210> 384
 <211> 150
 <212> PRT
 <213> Homo sapiens
 60
 <220>
 <221> SIGNAL
 <222> -20...-1

<400> 384
Met Ala Arg His Gly Leu Pro Leu Leu Pro Leu Leu Ser Leu Leu Val
-20 -15 -10 -5
5 Gly Ala Trp Leu Lys Leu Gly Asn Gly Gln Ala Thr Ser Met Val Gln
1 5 10
Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser Arg
15 20 25
10 Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala Ile
30 35 40
Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg Glu
45 50 55 60
Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val Phe
65 70 75
15 Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro Met
80 85 90
Lys Val Lys Phe Thr His Gly Gly Thr Gly Ser Ser Gln Thr Ala Pro
95 100 105
20 Thr Cys Gly Arg Glu Ser Ser Pro Arg Glu Thr Lys Leu Arg Met Ala
110 115 120
Ser Met Glu Ser Pro Gln
125 130

<210> 385
25 <211> 354
<212> PRT
<213> Homo sapiens

<400> 385
30 Met Ser Ala Gly Gly Gly Arg Ala Phe Ala Trp Gln Val Phe Pro Pro
1 5 10 15
Met Pro Thr Cys Arg Val Tyr Gly Thr Val Ala His Gln Asp Gly His
20 25 30
35 Leu Leu Val Leu Gly Gly Cys Gly Arg Ala Gly Leu Pro Leu Asp Thr
35 40 45
Ala Glu Thr Leu Asp Met Ala Ser His Thr Trp Leu Ala Leu Ala Pro
50 55 60
Leu Pro Thr Ala Arg Ala Gly Ala Ala Val Val Leu Gly Lys Gln
65 70 75 80
40 Val Leu Val Val Cys Gly Val Asp Glu Val Gln Ser Pro Val Ala Ala
85 90 95
Val Glu Ala Phe Leu Met Asp Glu Gly Arg Trp Glu Arg Arg Ala Thr
100 105 110
Leu Pro Gln Ala Ala Met Gly Val Ala Thr Val Glu Arg Asp Gly Met
115 120 125
45 Val Tyr Ala Leu Gly Gly Met Gly Pro Asp Thr Ala Pro Gln Ala Gln
130 135 140
Val Arg Val Tyr Asp Pro Arg Arg Asp Cys Trp Leu Ser Leu Pro Ser
145 150 155 160
50 Met Pro Thr Pro Cys Tyr Gly Ala Ser Thr Phe Leu His Gly Asn Lys
165 170 175
Ile Tyr Val Leu Gly Gly Arg Gln Gly Lys Leu Pro Val Thr Ala Phe
180 185 190
Glu Ala Phe Asp Leu Glu Ala Arg Thr Trp Thr Arg His Pro Ser Leu
195 200 205
55 Pro Ser Arg Arg Ala Phe Ala Gly Cys Ala Met Ala Glu Gly Ser Val
210 215 220
Phe Ser Leu Gly Gly Leu Gln Gln Pro Gly Pro His Asn Phe Tyr Ser
225 230 235 240
60 Arg Pro His Phe Val Asn Thr Val Glu Met Phe Asp Leu Glu His Gly
245 250 255
Ser Trp Thr Lys Leu Pro Arg Ser Leu Arg Met Arg Asp Lys Arg Ala
260 265 270

Asp Phe Val Val Gly Ser Leu Gly Gly His Ile Val Ala Ile Gly Gly
 275 280 285
 Leu Gly Asn Gln Pro Cys Pro Leu Gly Ser Val Glu Ser Phe Ser Leu
 290 295 300
 5 Ala Arg Arg Arg Trp Glu Ala Leu Pro Ala Met Pro Thr Ala Arg Cys
 305 310 315 320
 Ser Cys Ser Ser Leu Gln Ala Gly Pro Arg Leu Phe Val Ile Gly Gly
 325 330 335
 Val Ala Gln Gly Pro Ser Gln Ala Val Glu Ala Leu Cys Leu Arg Asp
 10 340 345 350
 Gly Val

<210> 386

<211> 207

15 <212> PRT

<213> Homo sapiens

<400> 386

Met Ala Leu Leu Phe Ala Arg Ser Leu Arg Leu Cys Arg Trp Gly Ala
 20 1 5 10 15
 Lys Arg Leu Gly Val Ala Ser Thr Glu Ala Gln Arg Gly Val Ser Phe
 20 25 30
 Lys Leu Glu Glu Lys Thr Ala His Ser Ser Leu Ala Leu Phe Arg Asp
 35 40 45
 25 Asp Thr Gly Val Lys Tyr Gly Leu Val Gly Leu Glu Pro Thr Lys Val
 50 55 60
 Ala Leu Asn Val Glu Arg Phe Arg Glu Trp Ala Val Val Leu Ala Asp
 65 70 75 80
 Thr Ala Val Thr Ser Gly Arg His Tyr Trp Glu Val Thr Val Lys Arg
 30 85 90 95
 Ser Gln Gln Phe Arg Ile Gly Val Ala Asp Val Asp Met Ser Arg Asp
 100 105 110
 Ser Cys Ile Gly Val Asp Asp Arg Ser Trp Val Phe Thr Tyr Ala Gln
 115 120 125
 35 Arg Lys Trp Tyr Thr Met Leu Ala Asn Glu Lys Ala Pro Val Glu Gly
 130 135 140
 Ile Gly Gln Pro Glu Lys Val Gly Leu Leu Leu Glu Tyr Glu Ala Gln
 145 150 155 160
 Lys Leu Ser Leu Val Asp Val Ser Gln Val Ser Val Val His Thr Leu
 40 165 170 175
 Gln Thr Asp Phe Arg Gly Pro Val Val Pro Ala Phe Ala Leu Trp Asp
 180 185 190
 Gly Glu Leu Leu Thr His Ser Gly Leu Glu Val Pro Glu Gly Leu
 195 200 205

45

<210> 387

<211> 210

<212> PRT

<213> Homo sapiens

50

<400> 387

Met Ala Ala Ser Val Glu Gln Arg Glu Gly Thr Ile Gln Val Gln Gly
 1 5 10 15
 Gln Ala Leu Phe Phe Arg Glu Ala Leu Pro Gly Ser Gly Gln Ala Arg
 55 20 25 30
 Phe Ser Val Leu Leu Leu His Gly Ile Arg Phe Ser Ser Glu Thr Trp
 35 40 45
 Gln Asn Leu Gly Thr Leu His Arg Leu Ala Gln Ala Gly Tyr Arg Ala
 50 55 60
 60 Val Ala Ile Asp Leu Pro Gly Leu Gly His Ser Lys Glu Ala Ala Ala
 65 70 75 80
 Pro Ala Pro Ile Gly Glu Leu Ala Pro Gly Ser Phe Leu Ala Ala Val
 85 90 95

Val Asp Ala Leu Glu Leu Gly Pro Pro Val Val Ile Ser Pro Ser Leu
 100 105 110
 Ser Gly Met Tyr Ser Leu Pro Phe Leu Thr Ala Pro Gly Ser Gln Leu
 115 120 125
 5 Pro Gly Phe Val Pro Val Ala Pro Ile Cys Thr Asp Lys Ile Asn Ala
 130 135 140
 Ala Asn Tyr Ala Ser Val Lys Thr Pro Ala Leu Ile Val Tyr Gly Asp
 145 150 155 160
 Gln Asp Pro Met Gly Gln Thr Ser Phe Glu His Leu Lys Gln Leu Pro
 10 165 170 175
 Asn His Arg Val Leu Ile Met Lys Gly Ala Gly His Pro Cys Tyr Leu
 180 185 190
 Asp Lys Pro Glu Glu Trp His Thr Gly Leu Leu Asp Phe Leu Gln Gly
 195 200 205
 15 Leu Gln
 210

 <210> 388
 <211> 375
 20 <212> PRT
 <213> Homo sapiens

 <400> 388
 25 Met Ala Val Thr Glu Ala Ser Leu Leu Arg Gln Cys Pro Leu Leu Leu
 1 5 10 15
 Pro Gln Asn Arg Ser Lys Thr Val Tyr Glu Gly Phe Ile Ser Ala Gln
 20 25 30
 Gly Arg Asp Phe His Leu Arg Ile Val Leu Pro Glu Asp Leu Gln Leu
 35 40 45
 30 Lys Asn Ala Arg Leu Leu Cys Ile Trp Gln Leu Arg Thr Ile Leu Ser
 50 55 60
 Gly Tyr His Arg Ile Val Gln Gln Arg Met Gln His Ser Pro Asp Leu
 65 70 75 80
 Met Ser Phe Met Met Glu Leu Lys Met Leu Leu Glu Val Ala Leu Lys
 35 85 90 95
 Asn Arg Gln Glu Leu Tyr Ala Leu Pro Pro Pro Gln Phe Tyr Ser
 100 105 110
 Ser Leu Ile Glu Glu Ile Gly Thr Leu Gly Trp Asp Lys Leu Val Tyr
 115 120 125
 40 Ala Asp Thr Cys Phe Ser Thr Ile Lys Leu Lys Ala Glu Asp Ala Ser
 130 135 140
 Gly Arg Glu His Leu Ile Thr Leu Lys Leu Lys Ala Lys Tyr Pro Ala
 145 150 155 160
 Glu Ser Pro Asp Tyr Phe Val Asp Phe Pro Val Pro Phe Cys Ala Ser
 45 165 170 175
 Trp Thr Pro Gln Ser Ser Leu Ile Ser Ile Tyr Ser Gln Phe Leu Ala
 180 185 190
 Ala Ile Glu Ser Leu Lys Ala Phe Trp Asp Val Met Asp Glu Ile Asp
 195 200 205
 50 Glu Lys Thr Trp Val Leu Glu Pro Glu Lys Pro Pro Arg Ser Ala Thr
 210 215 220
 Ala Arg Arg Ile Ala Leu Gly Asn Asn Val Ser Ile Asn Ile Glu Val
 225 230 235 240
 Asp Pro Arg His Pro Thr Met Leu Pro Glu Cys Phe Phe Leu Gly Ala
 55 245 250 255
 Asp His Val Val Lys Pro Leu Gly Ile Lys Leu Ser Arg Asn Ile His
 260 265 270
 Leu Trp Asp Pro Glu Asn Ser Val Leu Gln Asn Leu Lys Asp Val Leu
 275 280 285
 60 Glu Ile Asp Phe Pro Ala Arg Ala Ile Leu Glu Lys Ser Asp Phe Thr
 290 295 300
 Met Asp Cys Gly Ile Cys Tyr Ala Tyr Gln Leu Asp Gly Thr Ile Pro
 305 310 315 320

322

Leu Val Glu Asp Ser Leu Met Ile Glu Cys Ser Ala Arg Asp Ile Leu
 385 390 395 400
 Val Lys Gly Val Asp Glu Ser Gly Ala Ser Arg Phe Thr Val Leu Phe
 405 410 415
 5 Pro Ser Gly Thr Pro Leu Pro Ala Arg Arg Gln His Thr Leu Gln Ala
 420 425 430
 Pro Gly Ser Ile Ser Ser Val Cys Leu Glu Leu Tyr Glu Ser Asp Gly
 435 440 445
 Lys Asn Ser Ala Lys Glu Glu Thr Lys Phe Ala Gln Val Val Leu Gln
 10 450 455 460
 Asp Leu Asp Lys Lys Glu Asn Gly Leu Arg Asp Ile Leu Ala Val Leu
 465 470 475 480
 Thr Met Lys Arg Asp Gly Ser Leu His Val Thr Cys Thr Asp Gln Glu
 485 490 495
 15 Thr Gly Lys Cys Glu Ala Ile Ser Ile Glu Ile Ala Ser
 500 505

<210> 390

<211> 78

20 <212> PRT

<213> Homo sapiens

<400> 390

Met Tyr Asn Thr Gly Arg His Val Ser Leu Arg Leu Asp Lys Glu His
 25 1 5 10 15
 Leu Val Asn Ile Ser Gly Gly Pro Met Thr Tyr Ser His Arg Leu Glu
 20 25 30
 Glu Ile Arg Leu His Phe Gly Ser Glu Asp Ser Gln Gly Ser Glu His
 35 40 45
 30 Leu Leu Asn Gly Gln Ala Phe Ser Gly Glu Leu Gln Glu Arg Asp Leu
 50 55 60
 Phe Ile Leu Leu Thr Ser Val Ser Gly His Leu Pro Asp Thr
 65 70 75

35 <210> 391

<211> 162

<212> PRT

<213> Homo sapiens

40 <400> 391

Met Ala Thr His Ala Leu Glu Ile Ala Gly Leu Phe Leu Gly Gly Val
 1 5 10 15
 Gly Met Val Gly Thr Val Ala Val Thr Val Met Pro Gln Trp Ile Val
 20 25 30
 45 Ser Ala Phe Ile Glu Asn Asn Ile Val Val Phe Glu Asn Phe Trp Glu
 35 40 45
 Gly Leu Trp Met Asn Cys Val Arg Gln Ala Asn Ile Arg Met Gln Cys
 50 55 60
 Lys Ile Tyr Asp Ser Leu Leu Ala Leu Ser Pro Asp Leu Gln Ala Ala
 50 65 70 75 80
 Arg Gly Leu Met Cys Ala Ala Ser Val Met Ser Phe Leu Ala Phe Met
 85 90 95
 Met Ala Ile Leu Gly Met Lys Cys Thr Arg Cys Thr Gly Asp Asn Glu
 100 105 110
 55 Lys Val Lys Ala His Ile Leu Leu Thr Ala Gly Ile Ile Phe Ile Ile
 115 120 125
 Thr Gly Met Val Val Leu Ile Pro Val Ser Trp Val Ala Asn Ala Ile
 130 135 140
 Ile Arg Asp Phe Tyr Asn Pro Ile Val Asn Val Ala Gln Lys Arg Glu
 60 145 150 155 160
 Leu Gly

<210> 392

<211> 146
 <212> PRT
 <213> Homo sapiens

5 <400> 392

Met Asn Ser Leu Leu His Phe Gly Ile Leu Leu Glu Leu Ser Leu Leu
 1 5 10 15
 Lys Gln Phe Lys Ser Val Tyr Val Pro Gly Asn His Thr His Gln Ala
 20 25 30
 10 Ser Tyr Lys Pro Leu Leu Lys Gln Val Val Glu Glu Ile Phe His Pro
 35 40 45
 Glu Arg Pro Asp Ser Val Asp Ile Glu His Met Ser Ser Gly Leu Thr
 50 55 60
 Asp Leu Leu Lys Thr Gly Phe Ser Met Phe Met Lys Val Ser Arg Pro
 15 65 70 75 80
 His Pro Ser Asp Tyr Pro Leu Leu Ile Leu Phe Val Val Gly Gly Val
 85 90 95
 Thr Val Ser Glu Val Lys Met Val Lys Asp Leu Val Ala Ser Leu Lys
 100 105 110
 20 Pro Gly Thr Gln Val Ile Val Leu Ser Thr Arg Leu Leu Lys Pro Leu
 115 120 125
 Asn Ile Pro Glu Leu Leu Phe Ala Thr Asp Arg Leu His Pro Asp Leu
 130 135 140
 Gly Phe
 25 145

<210> 393

<211> 225

<212> PRT

30 <213> Homo sapiens

<400> 393

Met Ala Thr His Ala Leu Glu Ile Ala Gly Leu Phe Leu Gly Gly Val
 1 5 10 15
 35 Gly Met Val Gly Thr Val Ala Val Thr Val Met Pro Gln Trp Arg Val
 20 25 30
 Ser Ala Phe Ile Glu Asn Asn Ile Val Val Phe Glu Asn Phe Trp Glu
 35 40 45
 Gly Leu Trp Met Asn Cys Val Arg Gln Ala Asn Ile Arg Met Gln Cys
 40 50 55 60
 Lys Ile Tyr Asp Ser Leu Leu Ala Leu Ser Pro Asp Leu Gln Ala Ala
 65 70 75 80
 Arg Gly Leu Met Cys Ala Ala Ser Val Met Ser Phe Leu Ala Phe Met
 85 90 95
 45 Met Ala Ile Leu Gly Met Lys Cys Thr Arg Cys Thr Gly Asp Asn Glu
 100 105 110
 Lys Val Lys Ala His Ile Leu Leu Thr Ala Gly Ile Ile Phe Ile Ile
 115 120 125
 Ala Gly Met Val Val Leu Ile Pro Val Ser Trp Val Ala Asn Ala Ile
 130 135 140
 50 Ile Arg Asp Phe Tyr Asn Pro Ile Val Asn Val Ala Gln Lys Arg Glu
 145 150 155 160
 Leu Gly Glu Ala Leu Tyr Leu Gly Trp Thr Thr Ala Leu Val Leu Ile
 165 170 175
 55 Val Gly Gly Ala Leu Phe Cys Cys Val Phe Cys Cys Asn Glu Lys Ser
 180 185 190
 Ser Ser Tyr Arg Tyr Ser Ile Pro Ser His Arg Thr Thr Gln Lys Ser
 195 200 205
 Tyr His Thr Gly Lys Lys Ser Pro Ser Val Tyr Ser Arg Ser Gln Tyr
 60 210 215 220
 Val
 225

<210> 394
 <211> 114
 <212> PRT
 <213> Homo sapiens

5

<400> 394

Met Arg Leu Gln Asp Arg Ile Ala Thr Phe Phe Phe Pro Lys Gly Met
 1 5 10 15
 Met Leu Thr Thr Ala Ala Leu Met Leu Phe Phe Leu His Leu Gly Ile
 10 20 25 30
 Phe Ile Arg Asp Val His Asn Phe Cys Ile Thr Tyr His Tyr Asp His
 35 40 45
 Met Ser Phe His Tyr Thr Val Val Leu Met Phe Ser Gln Val Ile Ser
 50 55 60
 15 Ile Cys Trp Ala Ala Met Gly Ser Leu Tyr Ala Glu Met Thr Glu Asn
 65 70 75 80
 Asn Ala Gln Arg Ser His Val Leu Gln Pro Pro Val Leu Gly Val Ser
 85 90 95
 Gly His Arg Val Pro Gly Gly Ala Pro Leu Arg Pro Gly Glu Ser Glu
 20 100 105 110
 Gln Gly

<210> 395

<211> 367

25 <212> PRT

<213> Homo sapiens

<400> 395

Met Ala Thr Pro Asn Asn Leu Thr Pro Thr Asn Cys Ser Trp Trp Pro
 1 5 10 15
 Ile Ser Ala Leu Glu Ser Asp Ala Ala Lys Pro Ala Glu Ala Pro Asp
 20 25 30
 Ala Pro Glu Ala Ala Ser Pro Ala His Trp Pro Arg Glu Ser Leu Val
 35 35 40 45
 Leu Tyr His Trp Thr Gln Ser Phe Ser Ser Gln Lys Val Arg Leu Val
 50 55 60
 Ile Ala Glu Lys Gly Leu Val Cys Glu Glu Arg Asp Val Ser Leu Pro
 65 70 75 80
 Gln Ser Glu His Lys Glu Pro Trp Phe Met Arg Leu Asn Leu Gly Glu
 40 85 90 95
 Glu Val Pro Val Ile Ile His Arg Asp Asn Ile Ile Ser Asp Tyr Asp
 100 105 110
 Gln Ile Ile Asp Tyr Val Glu Arg Thr Phe Thr Gly Glu His Val Val
 115 120 125
 45 Ala Leu Met Pro Glu Val Gly Ser Leu Gln His Ala Arg Val Leu Gln
 130 135 140
 Tyr Arg Glu Leu Leu Asp Ala Leu Pro Met Asp Ala Tyr Thr His Gly
 145 150 155 160
 Cys Ile Leu His Pro Glu Leu Thr Thr Asp Ser Met Ile Pro Lys Tyr
 50 165 170 175
 Ala Thr Ala Glu Ile Arg Arg His Leu Ala Asn Ala Thr Thr Asp Leu
 180 185 190
 Met Lys Leu Asp His Glu Glu Glu Pro Gln Leu Ser Glu Pro Tyr Leu
 195 200 205
 55 Ser Lys Gln Lys Lys Leu Met Val Lys Ile Leu Glu His Asp Asp Val
 210 215 220
 Ser Tyr Leu Lys Lys Ile Leu Gly Glu Leu Ala Met Val Leu Asp Gln
 225 230 235 240
 Ile Glu Ala Glu Leu Glu Lys Arg Lys Leu Glu Asn Glu Gly Gln Lys
 60 245 250 255
 Cys Glu Leu Trp Leu Cys Gly Cys Ala Phe Thr Leu Ala Asp Val Leu
 260 265 270
 Leu Gly Ala Thr Leu His Arg Leu Lys Phe Leu Gly Leu Ser Lys Lys

275 280 285
 Tyr Trp Glu Asp Gly Ser Arg Pro Asn Leu Gln Ser Phe Phe Glu Arg
 290 295 300
 Val Gln Arg Arg Phe Ala Phe Arg Lys Val Leu Gly Asp Ile His Thr
 5 305 310 315 320
 Thr Leu Leu Ser Ala Val Ile Pro Asn Ala Phe Arg Leu Val Lys Arg
 325 330 335
 Lys Pro Pro Ser Phe Phe Gly Ala Ser Phe Leu Met Gly Ser Leu Gly
 340 345 350
 10 Gly Met Gly Tyr Phe Ala Tyr Trp Tyr Leu Lys Lys Lys Tyr Ile
 355 360 365

<210> 396

<211> 279

15 <212> PRT

<213> Homo sapiens

<400> 396

20 Met Pro Val Cys Ala Pro Val Leu Trp Arg Ala Arg Arg Leu Cys Gly
 1 5 10 15
 Met Pro Val Cys Ala Pro Val Pro Trp Arg Ala Arg Arg Leu Cys Thr
 20 25 30
 Arg Ala Val Val Cys Pro Ser Ser Val Pro Phe Ile Ala Gly Gln Gly
 35 40 45
 25 Cys Thr His Met Cys Lys Pro Ala Thr Asp Pro Arg Phe Thr Arg Ser
 50 55 60
 Pro Leu Ala Gly Gly Val Ile Leu Gly Val Ala Leu Trp Leu Arg His
 65 70 75 80
 30 Asp Pro Gln Thr Thr Asn Leu Leu Tyr Leu Glu Leu Gly Asp Lys Pro
 85 90 95
 Ala Pro Asn Thr Phe Tyr Val Gly Ile Tyr Ile Leu Ile Ala Val Gly
 100 105 110
 Ala Val Met Met Phe Val Gly Phe Leu Gly Cys Tyr Gly Ala Ile Gln
 115 120 125
 35 Glu Ser Gln Cys Leu Leu Gly Thr Phe Phe Thr Cys Leu Val Ile Leu
 130 135 140
 Phe Ala Cys Glu Val Ala Ala Gly Ile Trp Gly Phe Val Asn Lys Asp
 145 150 155 160
 Gln Ile Ala Lys Asp Val Lys Gln Phe Tyr Asp Gln Ala Leu Gln Gln
 165 170 175
 40 Ala Val Val Asp Asp Asp Ala Asn Asn Ala Lys Ala Val Val Lys Thr
 180 185 190
 Phe His Glu Thr Leu Asp Cys Cys Gly Ser Ser Thr Leu Thr Ala Leu
 195 200 205
 45 Thr Thr Ser Val Leu Lys Asn Asn Leu Cys Pro Ser Gly Ser Asn Ile
 210 215 220
 Ile Ser Asn Leu Phe Lys Glu Asp Cys His Gln Lys Ile Asp Asp Leu
 225 230 235 240
 Phe Ser Gly Lys Leu Tyr Leu Ile Gly Ile Ala Ala Ile Val Val Ala
 245 250 255
 50 Val Ile Met Ile Phe Glu Met Ile Leu Ser Met Val Leu Cys Cys Gly
 260 265 270
 Ile Arg Asn Ser Ser Val Tyr
 275

<210> 397

<211> 173

<212> PRT

<213> Homo sapiens

60

<400> 397

Met Cys Leu Leu Leu Gly Ala Thr Gly Val Gly Lys Thr Leu Leu Val
 1 5 10 15

Lys Arg Leu Gln Glu Val Ser Ser Arg Asp Gly Lys Gly Asp Leu Gly
 20 25 30
 Glu Pro Pro Thr Arg Pro Thr Val Gly Thr Asn Leu Thr Asp Ile
 35 40 45
 5 Val Ala Gln Arg Lys Ile Thr Ile Arg Glu Leu Gly Gly Cys Met Gly
 50 55 60
 Pro Ile Trp Ser Ser Tyr Tyr Gly Asn Cys Arg Ser Leu Leu Phe Val
 65 70 75 80
 10 Met Asp Ala Ser Asp Pro Thr Gln Leu Ser Ala Ser Cys Val Gln Leu
 85 90 95
 Leu Gly Leu Leu Ser Ala Glu Gln Leu Ala Glu Ala Ser Val Leu Ile
 100 105 110
 Leu Phe Asn Lys Ile Asp Leu Pro Cys Tyr Met Ser Thr Glu Glu Met
 115 120 125
 15 Lys Ser Leu Ile Arg Leu Pro Asp Ile Ile Ala Cys Ala Lys Gln Asn
 130 135 140
 Ile Thr Thr Ala Glu Ile Ser Ala Arg Glu Gly Thr Gly Leu Ala Gly
 145 150 155 160
 Val Leu Ala Trp Leu Gln Ala Thr His Arg Ala Asn Asp
 165 170
 20

<210> 398

<211> 205

<212> PRT

25 <213> Homo sapiens

<400> 398

Met Ala Ala Ala Arg Pro Ser Leu Gly Arg Val Leu Pro Gly Ser Ser
 1 5 10 15
 30 Val Leu Phe Leu Cys Asp Met Gln Glu Lys Phe Arg His Asn Ile Ala
 20 25 30
 Tyr Phe Pro Gln Ile Val Ser Val Ala Ala Arg Met Leu Lys Val Ala
 35 40 45
 Arg Leu Leu Glu Val Pro Val Met Leu Thr Glu Gln Tyr Pro Gln Gly
 50 55 60
 35 Leu Gly Pro Thr Val Pro Glu Leu Gly Thr Glu Gly Leu Arg Pro Leu
 65 70 75 80
 Ala Lys Thr Cys Phe Ser Met Val Pro Ala Leu Gln Gln Glu Leu Asp
 85 90 95
 40 Ser Arg Pro Gln Leu Arg Ser Val Leu Leu Cys Gly Ile Glu Ala Gln
 100 105 110
 Ala Cys Ile Leu Asn Thr Thr Leu Asp Leu Leu Asp Arg Gly Leu Gln
 115 120 125
 Val His Val Val Val Asp Ala Cys Ser Ser Arg Ser Gln Val Asp Arg
 130 135 140
 45 Leu Val Ala Leu Ala Arg Met Arg Gln Ser Gly Ala Phe Leu Ser Thr
 145 150 155 160
 Ser Glu Gly Leu Ile Leu Gln Leu Val Gly Asp Ala Val His Pro Gln
 165 170 175
 50 Phe Lys Glu Ile Gln Lys Leu Ile Lys Glu Pro Ala Pro Asp Ser Gly
 180 185 190
 Leu Leu Gly Leu Phe Gln Gly Gln Asn Ser Leu Leu His
 195 200 205

55 <210> 399

<211> 180

<212> PRT

<213> Homo sapiens

60 <400> 399

Met Trp Leu Tyr Arg Asn Pro Tyr Val Glu Ala Glu Tyr Phe Pro Thr
 1 5 10 15
 Lys Pro Met Phe Val Ile Ala Phe Leu Ser Pro Leu Ser Leu Ile Phe

20 25 30
 Leu Ala Lys Phe Leu Lys Lys Ala Asp Thr Arg Asp Ser Arg Gln Ala
 35 40 45
 5 Cys Leu Ala Ala Ser Leu Ala Leu Ala Leu Asn Gly Val Phe Thr Asn
 50 55 60
 Thr Ile Lys Leu Ile Val Gly Arg Pro Arg Pro Asp Phe Phe Tyr Arg
 65 70 75 80
 Cys Phe Pro Asp Gly Leu Ala His Ser Asp Leu Met Cys Thr Gly Asp
 85 90 95
 10 Lys Asp Val Val Asn Glu Gly Arg Lys Ser Phe Pro Ser Gly His Ser
 100 105 110
 Ser Phe Ala Phe Ala Gly Leu Ala Phe Ala Ser Phe Tyr Leu Ala Gly
 115 120 125
 Lys Leu His Cys Phe Thr Pro Gln Gly Arg Gly Lys Ser Trp Arg Phe
 130 135 140
 15 Cys Ala Phe Leu Ser Pro Leu Leu Phe Ala Ala Val Ile Ala Leu Ser
 145 150 155 160
 Arg Thr Cys Asp Tyr Lys His His Trp Gln Asp Leu Leu Lys Cys Thr
 165 170 175
 20 Asn Thr Ala Lys
 180

<210> 400

<211> 150

25 <212> PRT

<213> Homo sapiens

<400> 400

30 Met Cys Thr Ala Leu Leu Leu Tyr Leu Arg Trp Cys Phe Asn Leu
 1 5 10 15
 Lys Leu Val Asn Val Lys Tyr Glu Pro Lys Asp Ser Leu Gly Pro Glu
 20 25 30
 Met Thr Phe Val Ala Asp Ala Ala Arg Gly Pro Leu Leu Ser Ser Leu
 35 35 40 45
 Asp Ser Pro Ala Asn Leu Met Ser Thr Ala Ser Val Cys Ile Ser Leu
 50 55 60
 Pro Glu Gly Cys Ser Gly Gly Arg Ser Pro Cys Tyr Ser Gln Lys Trp
 65 70 75 80
 Pro Pro Glu Val Pro Glu Lys Leu Thr Ser Leu Gly Gln Gln Ser Ser
 40 85 90 95
 Thr Ser Ser Leu Thr Asp Thr Asp Val Gln Val Ser Pro Met Leu Val
 100 105 110
 Ala Gly Val Asn His Ser Ser Ser Leu Leu Asp Asn Ile Pro Phe Thr
 115 120 125
 45 Gly Cys Leu Pro Phe His Leu Ser Ser Ser Leu Pro Tyr Leu Cys Leu
 130 135 140
 Leu Gly Ser Pro Phe Lys
 145 150

50 <210> 401

<211> 170

<212> PRT

<213> Homo sapiens

55 <400> 401

Met Glu Asp Pro Asn Pro Glu Glu Asn Met Lys Gln Gln Asp Ser Pro
 1 5 10 15
 Lys Glu Arg Ser Pro Gln Ser Pro Gly Gly Asn Ile Cys His Leu Gly
 20 25 30
 60 Ala Pro Lys Cys Thr Arg Cys Leu Ile Thr Phe Ala Asp Ser Lys Phe
 35 40 45
 Gln Glu Arg His Met Lys Arg Glu His Pro Ala Asp Phe Val Ala Gln
 50 55 60

Lys Leu Gln Gly Val Leu Phe Ile Cys Phe Thr Cys Ala Arg Ser Phe
 65 70 75 80
 Pro Ser Ser Lys Ala Leu Ile Thr His Gln Arg Ser His Gly Pro Ala
 85 90 95
 5 Ala Lys Pro Thr Leu Pro Val Ala Thr Thr Thr Ala Gln Pro Thr Phe
 100 105 110
 Pro Cys Pro Asp Cys Gly Lys Thr Phe Gly Gln Ala Val Ser Leu Arg
 115 120 125
 Arg His Arg Gln Met His Glu Val Arg Ala Pro Pro Gly Thr Phe Ala
 10 130 135 140
 Cys Thr Glu Cys Gly Gln Asp Phe Ala Gln Glu Ala Gly Leu His Gln
 145 150 155 160
 His Tyr Ile Arg His Ala Arg Gly Glu Leu
 165 170
 15
 <210> 402
 <211> 169
 <212> PRT
 <213> Homo sapiens
 20
 <400> 402
 Met Glu Asp Pro Asn Pro Glu Glu Asn Met Lys Gln Gln Asp Ser Pro
 1 5 10 15
 Lys Glu Arg Ser Pro Gln Pro Arg Arg Gln His Leu Pro Pro Gly Gly
 25 20 25 30
 Pro Glu Val His Pro Leu Pro His His Leu Arg Arg Phe Gln Val Pro
 35 40 45
 Gly Ala Ser His Glu Ala Gly Ala Pro Ser Gly Leu Arg Gly Pro Glu
 50 55 60
 30 Ala Ala Gly Gly Pro Leu His Leu Leu His Leu Arg Pro Leu Leu Pro
 65 70 75 80
 Leu Leu Gln Ser Pro Asn His Pro Pro Ala Gln His Gly Pro Ala Ala
 85 90 95
 Lys Pro Thr Leu Pro Val Ala Thr Thr Thr Ala Gln Pro Thr Phe Pro
 35 100 105 110
 Cys Pro Asp Cys Gly Lys Thr Phe Gly Gln Ala Val Ser Leu Arg Arg
 115 120 125
 His Arg Gln Met His Glu Val Arg Ala Pro Pro Gly Thr Phe Ala Cys
 130 135 140
 40 Thr Glu Cys Gly Gln Asp Phe Ala Gln Glu Ala Gly Leu His Gln His
 145 150 155 160
 Tyr Ile Arg His Ala Arg Gly Glu Leu
 165
 45
 <210> 403
 <211> 367
 <212> PRT
 <213> Homo sapiens
 50
 <400> 403
 Met Ala Thr Pro Asn Asn Leu Thr Pro Thr Asn Cys Ser Trp Trp Pro
 1 5 10 15
 Ile Ser Ala Leu Glu Ser Asp Ala Ala Lys Pro Ala Glu Ala Pro Asp
 20 25 30
 55 Ala Pro Glu Ala Ala Ser Pro Ala His Trp Pro Arg Glu Ser Leu Val
 35 40 45
 Leu Tyr His Trp Thr Gln Ser Phe Ser Ser Gln Lys Val Arg Leu Val
 50 55 60
 Ile Ala Glu Lys Gly Leu Val Cys Glu Glu Arg Asp Val Ser Leu Pro
 60 65 70 75 80
 Gln Ser Glu His Lys Glu Pro Trp Phe Met Arg Leu Asn Leu Gly Glu
 85 90 95
 Glu Val Pro Val Ile Ile His Arg Asp Asn Ile Ile Ser Asp Tyr Asp

100 105 110
 Gln Ile Ile Asp Tyr Val Glu Arg Thr Phe Thr Gly Glu His Val Val
 115 120 125
 Ala Leu Met Pro Glu Val Gly Ser Leu Gln His Ala Arg Val Leu Gln
 130 135 140
 5 Tyr Arg Glu Leu Leu Asp Ala Leu Pro Met Asp Ala Tyr Thr His Gly
 145 150 155 160
 Cys Ile Leu His Leu Glu Leu Thr Thr Asp Ser Met Ile Pro Lys Tyr
 165 170 175
 10 Ala Thr Ala Glu Ile Arg Arg His Leu Ala Asn Ala Thr Thr Asp Leu
 180 185 190
 Met Lys Leu Asp His Glu Glu Glu Pro Gln Leu Ser Glu Pro Tyr Leu
 195 200 205
 Ser Lys Gln Lys Lys Leu Met Ala Lys Ile Leu Glu His Asp Asp Val
 210 215 220
 15 Ser Tyr Leu Lys Lys Ile Leu Gly Glu Leu Ala Met Val Leu Asp Gln
 225 230 235 240
 Ile Glu Ala Glu Leu Glu Lys Arg Lys Leu Glu Asn Glu Gly Gln Lys
 245 250 255
 20 Cys Glu Leu Trp Leu Cys Gly Cys Ala Phe Thr Leu Ala Asp Val Leu
 260 265 270
 Leu Gly Ala Thr Leu His Arg Leu Lys Phe Leu Gly Leu Ser Lys Lys
 275 280 285
 Tyr Trp Glu Asp Gly Ser Arg Pro Asn Leu Gln Ser Phe Phe Glu Arg
 290 295 300
 25 Val Gln Arg Arg Phe Ala Phe Arg Lys Val Leu Gly Asp Ile His Thr
 305 310 315 320
 Thr Leu Leu Ser Ala Val Ile Pro Asn Ala Phe Arg Leu Val Lys Arg
 325 330 335
 30 Lys Pro Pro Ser Phe Phe Gly Ala Ser Phe Leu Met Gly Ser Leu Gly
 340 345 350
 Gly Met Gly Tyr Phe Ala Tyr Trp Tyr Leu Lys Lys Lys Tyr Ile
 355 360 365

 35 <210> 404
 <211> 20
 <212> PRT
 <213> Homo sapiens

 40 <400> 404
 Met Ala Ala Ala Arg Pro Ser Leu Gly Arg Val Leu Pro Gly Ser Ser
 1 5 10 15
 Pro Val Pro Val
 20

 45
 <210> 405
 <211> 225
 <212> PRT
 <213> Homo sapiens

 50
 <400> 405
 Met Ala Thr His Ala Leu Glu Ile Ala Gly Leu Phe Leu Gly Gly Val
 1 5 10 15
 Gly Met Val Gly Thr Val Ala Val Thr Val Met Pro Gln Trp Arg Val
 20 25 30
 55 Ser Ala Phe Ile Glu Asn Asn Ile Val Val Phe Glu Asn Phe Trp Glu
 35 40 45
 Gly Leu Trp Met Asn Cys Val Arg Gln Ala Asn Ile Arg Met Gln Cys
 50 55 60
 60 Lys Ile Tyr Asp Ser Leu Leu Ala Leu Ser Pro Asp Leu Gln Ala Ala
 65 70 75 80
 Arg Gly Leu Met Cys Ala Ala Ser Val Met Ser Phe Leu Ala Phe Met
 85 90 95

Met Ala Ile Leu Gly Met Lys Cys Thr Arg Cys Thr Gly Asp Asn Glu
 100 105 110
 Lys Val Lys Ala His Ile Leu Leu Thr Ala Gly Ile Ile Phe Ile Ile
 115 120 125
 5 Thr Gly Met Val Val Leu Ile Pro Val Ser Trp Val Ala Asn Ala Ile
 130 135 140
 Ile Arg Asp Phe Tyr Asn Ser Ile Val Asn Val Ala Gln Lys Arg Glu
 145 150 155 160
 10 Leu Gly Glu Ala Leu Tyr Leu Gly Trp Thr Thr Ala Leu Val Leu Ile
 165 170 175
 Val Gly Gly Ala Leu Phe Cys Cys Val Phe Cys Cys Asn Glu Lys Ser
 180 185 190
 Ser Ser Tyr Arg Tyr Ser Ile Pro Ser His Arg Thr Thr Gln Lys Ser
 195 200 205
 15 Tyr His Thr Gly Lys Lys Ser Pro Ser Val Tyr Ser Arg Ser Gln Tyr
 210 215 220
 Val
 225
 20 <210> 406
 <211> 378
 <212> PRT
 <213> Homo sapiens
 25 <400> 406
 Met Asp Pro Gly Asp Asp Trp Leu Val Glu Ser Leu Arg Leu Tyr Gln
 1 5 10 15
 Asp Phe Tyr Ala Phe Asp Leu Ser Gly Ala Thr Arg Val Leu Glu Trp
 20 25 30
 30 Ile Asp Asp Lys Gly Val Phe Val Ala Gly Tyr Glu Ser Leu Lys Lys
 35 40 45
 Asn Glu Ile Leu His Leu Lys Leu Pro Leu Arg Leu Ser Val Lys Glu
 50 55 60
 35 Asn Lys Gly Leu Phe Pro Glu Arg Asp Phe Lys Val Arg His Gly Gly
 65 70 75 80
 Phe Ser Asp Arg Ser Ile Phe Asp Leu Lys His Val Pro His Thr Arg
 85 90 95
 Leu Leu Val Thr Ser Gly Leu Pro Gly Cys Tyr Leu Gln Val Trp Gln
 100 105 110
 40 Val Ala Glu Asp Ser Asp Val Ile Lys Ala Val Ser Thr Ile Ala Val
 115 120 125
 His Glu Lys Glu Glu Ser Leu Trp Pro Arg Val Ala Val Phe Ser Thr
 130 135 140
 Leu Ala Pro Gly Val Leu His Gly Ala Arg Leu Arg Ser Leu Gln Val
 145 150 155 160
 45 Val Asp Leu Glu Ser Arg Lys Thr Thr Tyr Thr Ser Asp Val Ser Asp
 165 170 175
 Ser Glu Glu Leu Ser Ser Leu Gln Val Leu Asp Ala Asp Thr Phe Ala
 180 185 190
 50 Phe Cys Cys Ala Ser Gly Arg Leu Gly Leu Val Asp Thr Arg Gln Lys
 195 200 205
 Trp Ala Pro Leu Glu Asn Arg Ser Pro Gly Pro Gly Ser Gly Gly Glu
 210 215 220
 Arg Trp Cys Ala Glu Val Gly Ser Trp Gly Gln Gly Pro Gly Pro Ser
 225 230 235 240
 55 Ile Ala Ser Leu Ser Ser Asp Gly Arg Leu Cys Leu Leu Asp Pro Arg
 245 250 255
 Asp Leu Cys His Pro Val Ser Ser Val Gln Cys Pro Val Ser Val Pro
 260 265 270
 60 Ser Pro Asp Pro Glu Leu Leu Arg Val Thr Trp Ala Pro Gly Leu Lys
 275 280 285
 Asn Cys Leu Ala Ile Ser Gly Phe Asp Gly Thr Val Gln Val Tyr Asp
 290 295 300

Ala Thr Ser Trp Asp Gly Thr Arg Ser Gln Asp Gly Thr Arg Ser Gln
 305 310 315 320
 Val Glu Pro Leu Phe Thr His Arg Gly His Ile Phe Leu Asp Gly Asn
 325 330 335
 5 Gly Met Asp Pro Ala Pro Leu Val Thr Thr His Thr Trp His Pro Cys
 340 345 350
 Arg Pro Arg Thr Leu Leu Ser Ala Thr Asn Asp Ala Ser Leu His Val
 355 360 365
 Trp Asp Trp Val Asp Leu Cys Ala Pro Arg
 10 370 375

 <210> 407
 <211> 43
 <212> PRT
 15 <213> Homo sapiens

 <400> 407
 Met Ala Thr His Ala Leu Glu Ile Ala Gly Leu Phe Leu Gly Gly Val
 1 5 10 15
 20 Gly Met Val Gly Thr Val Ala Val Thr Val Met Pro Gln Trp Arg Val
 20 25 30
 Ser Ala Phe Ile Glu Asn Asn Ile Val Val Phe
 35 40

 25 <210> 408
 <211> 345
 <212> PRT
 <213> Homo sapiens

 30 <400> 408
 Met Ala Trp Arg Gly Trp Ala Gln Arg Gly Trp Gly Cys Gly Gln Ala
 1 5 10 15
 Trp Gly Ala Ser Val Gly Gly Arg Ser Cys Glu Glu Leu Thr Ala Val
 20 25 30
 35 Leu Thr Pro Pro Gln Leu Leu Gly Arg Arg Phe Asn Phe Phe Ile Gln
 35 40 45
 Gln Lys Cys Gly Phe Arg Lys Ala Pro Arg Lys Val Glu Pro Arg Arg
 50 55 60
 Ser Asp Pro Gly Thr Ser Gly Glu Ala Tyr Lys Arg Ser Ala Leu Ile
 40 65 70 75 80
 Pro Pro Val Glu Glu Thr Val Phe Tyr Pro Ser Pro Tyr Pro Ile Arg
 85 90 95
 Ser Leu Ile Lys Pro Leu Phe Phe Thr Val Gly Phe Thr Gly Cys Ala
 100 105 110
 45 Phe Gly Ser Ala Ala Ile Trp Gln Tyr Glu Ser Leu Lys Ser Arg Val
 115 120 125
 Gln Ser Tyr Phe Asp Gly Ile Lys Ala Asp Trp Leu Asp Ser Ile Arg
 130 135 140
 Pro Gln Lys Glu Gly Asp Phe Arg Lys Glu Ile Asn Lys Trp Trp Asn
 50 145 150 155 160
 Asn Leu Ser Asp Gly Gln Arg Thr Val Thr Gly Ile Ile Ala Ala Asn
 165 170 175
 Val Leu Val Phe Cys Leu Trp Arg Val Pro Ser Leu Gln Arg Thr Met
 180 185 190
 55 Ile Arg Tyr Phe Thr Ser Asn Pro Ala Ser Lys Val Leu Cys Ser Pro
 195 200 205
 Met Leu Leu Ser Thr Phe Ser His Phe Ser Leu Phe His Met Ala Ala
 210 215 220
 Asn Met Tyr Val Leu Trp Ser Phe Ser Ser Ser Ile Val Asn Ile Leu
 60 225 230 235 240
 Gly Gln Glu Gln Phe Met Ala Val Tyr Leu Ser Ala Gly Val Ile Ser
 245 250 255
 Asn Phe Val Ser Tyr Val Gly Lys Val Ala Thr Gly Arg Tyr Gly Pro

260
 Ser Leu Gly Ala Ala Leu Lys Ala Ile Ile Ala Met Asp Thr Ala Gly
 275 280 285
 5 Met Ile Leu Gly Trp Lys Phe Asp His Ala Ala His Leu Gly Gly
 290 295 300
 Ala Leu Phe Gly Ile Trp Tyr Val Thr Tyr Gly His Glu Leu Ile Trp
 305 310 315 320
 Lys Asn Arg Glu Pro Leu Val Lys Ile Trp His Glu Ile Arg Thr Asn
 325 330 335
 10 Gly Pro Lys Lys Gly Gly Gly Ser Lys
 340 345

<210> 409

<211> 236

15 <212> PRT

<213> Homo sapiens

<400> 409

20 Met Lys Arg Ser Gly Asn Pro Gly Ala Glu Val Thr Asn Ser Ser Val
 1 5 10 15
 Ala Gly Pro Asp Cys Cys Gly Gly Leu Gly Asn Ile Asp Phe Arg Gln
 20 25 30
 Ala Asp Phe Cys Val Met Thr Arg Leu Leu Gly Tyr Val Asp Pro Leu
 35 40 45
 25 Asp Pro Ser Phe Val Ala Ala Val Ile Thr Ile Thr Phe Asn Pro Leu
 50 55 60
 Tyr Trp Asn Val Val Ala Arg Trp Glu His Lys Thr Arg Lys Leu Ser
 65 70 75 80
 30 Arg Ala Phe Gly Ser Pro Tyr Leu Ala Cys Tyr Ser Leu Ser Ile Thr
 85 90 95
 Ile Leu Leu Leu Asn Phe Leu Arg Ser His Cys Phe Thr Gln Ala Met
 100 105 110
 Leu Ser Gln Pro Arg Met Glu Ser Leu Asp Thr Pro Ala Ala Tyr Ser
 115 120 125
 35 Leu Val Leu Ala Leu Leu Gly Leu Gly Val Val Leu Val Leu Ser Ser
 130 135 140
 Phe Phe Ala Leu Gly Phe Ala Gly Thr Phe Leu Gly Asp Tyr Phe Gly
 145 150 155 160
 Ile Leu Lys Glu Ala Arg Val Thr Val Phe Pro Phe Asn Ile Leu Asp
 165 170 175
 40 Asn Pro Met Tyr Trp Gly Ser Thr Ala Asn Tyr Leu Gly Trp Ala Ile
 180 185 190
 Met His Ala Ser Pro Thr Gly Leu Leu Leu Thr Val Leu Val Ala Leu
 195 200 205
 45 Thr Tyr Ile Val Ala Leu Leu Tyr Glu Glu Pro Phe Thr Ala Glu Ile
 210 215 220
 Tyr Arg Gln Lys Ala Ser Gly Ser His Lys Arg Ser
 225 230 235

50 <210> 410

<211> 121

<212> PRT

<213> Homo sapiens

55 <400> 410

Met Asn Thr Glu Ala Glu Gln Gln Leu Leu His His Ala Arg Asn Gly
 1 5 10 15
 Asn Ala Glu Glu Val Arg Gln Leu Leu Glu Thr Met Ala Ser Asn Glu
 20 25 30
 60 Val Ile Ala Asp Ile Asn Cys Lys Gly Arg Ser Lys Ser Asn Leu Gly
 35 40 45
 Trp Thr Pro Leu His Leu Ala Cys Tyr Phe Gly His Arg Gln Val Val
 50 55 60

Gln Asp Leu Leu Lys Ala Gly Ala Glu Val Asn Val Leu Asn Asp Met
 65 70 75 80
 Gly Asp Thr Pro Leu His Arg Ala Ala Phe Thr Gly Arg Lys Val Lys
 85 90 95
 5 Ile Ile Leu Cys Ser Met Phe Val Ser Glu Val Phe Gly Gly Val Val
 100 105 110
 Thr Ile Val Phe Ser Val Ile Thr Ile
 115 120

10 <210> 411
 <211> 170
 <212> PRT
 <213> Homo sapiens

15 <400> 411
 Met Arg Leu Gln Gly Ala Ile Phe Val Leu Leu Pro His Leu Gly Pro
 1 5 10 15
 Ile Leu Val Trp Leu Phe Thr Arg Asp His Met Ser Gly Trp Cys Glu
 20 20 25 30
 Gly Pro Arg Met Leu Ser Trp Cys Pro Phe Tyr Lys Val Leu Leu Leu
 35 40 45
 Val Gln Thr Ala Ile Tyr Ser Val Val Gly Tyr Ala Ser Tyr Leu Val
 50 55 60
 Trp Lys Asp Leu Gly Gly Gly Leu Gly Trp Pro Leu Ala Leu Pro Leu
 25 65 70 75 80
 Gly Leu Tyr Ala Val Gln Leu Thr Ile Ser Trp Thr Val Leu Val Leu
 85 90 95
 Phe Phe Thr Val His Asn Pro Gly Leu Ala Leu Leu His Leu Leu Leu
 100 105 110
 30 Leu Tyr Gly Leu Val Val Ser Thr Ala Leu Ile Trp His Pro Ile Asn
 115 120 125
 Lys Leu Ala Ala Leu Leu Leu Leu Pro Tyr Leu Ala Trp Leu Thr Val
 130 135 140
 Thr Ser Ala Leu Thr Tyr His Leu Trp Arg Asp Ser Leu Cys Pro Val
 35 145 150 155 160
 His Gln Pro Gln Pro Thr Glu Lys Ser Asp
 165 170

40 <210> 412
 <211> 236
 <212> PRT
 <213> Homo sapiens

<400> 412
 45 Met Leu Ser Lys Gly Leu Lys Arg Lys Arg Glu Glu Glu Glu Lys
 1 5 10 15
 Glu Pro Leu Ala Val Asp Ser Trp Trp Leu Asp Pro Gly His Thr Ala
 20 25 30
 Val Ala Gln Ala Pro Pro Ala Val Ala Ser Ser Ser Leu Phe Asp Leu
 50 35 40 45
 Ser Val Leu Lys Leu His His Ser Leu Gln Gln Ser Glu Pro Asp Leu
 50 55 60
 Arg His Leu Val Leu Val Val Asn Thr Leu Arg Arg Ile Gln Ala Ser
 65 70 75 80
 55 Met Ala Pro Ala Ala Ala Leu Pro Pro Val Pro Ser Pro Pro Ala Ala
 85 90 95
 Pro Ser Val Ala Asp Asn Leu Leu Ala Ser Ser Asp Ala Ala Leu Ser
 100 105 110
 Ala Ser Met Ala Ser Leu Leu Glu Asp Leu Ser His Ile Glu Gly Leu
 60 115 120 125
 Ser Gln Ala Pro Gln Pro Leu Ala Asp Glu Gly Pro Pro Gly Arg Ser
 130 135 140
 Ile Gly Gly Ala Ala Pro Ser Leu Gly Ala Leu Asp Leu Leu Gly Pro

145 150 155 160
 Ala Thr Gly Cys Leu Leu Asp Asp Gly Leu Glu Gly Leu Phe Glu Asp
 165 170 175
 Ile Asp Thr Ser Met Tyr Asp Asn Glu Leu Trp Ala Pro Ala Ser Glu
 5 180 185 190
 Gly Leu Lys Pro Gly Pro Glu Asp Gly Pro Gly Lys Glu Glu Ala Pro
 195 200 205
 Glu Leu Asp Glu Ala Glu Leu Asp Tyr Leu Met Asp Val Leu Val Gly
 210 215 220
 10 Thr Gln Ala Leu Glu Arg Pro Pro Gly Pro Gly Arg
 225 230 235

<210> 413
 <211> 191
 15 <212> PRT
 <213> Homo sapiens

<400> 413
 Met Lys Gly Leu Tyr Phe Gln Gln Ser Ser Thr Asp Glu Glu Ile Thr
 20 1 5 10 15
 Phe Val Phe Gln Glu Lys Glu Asp Leu Pro Val Thr Glu Asp Asn Phe
 20 25 30
 Val Lys Leu Gln Val Lys Ala Cys Ala Leu Ser Gln Ile Asn Thr Lys
 35 40 45
 25 Leu Leu Ala Glu Met Lys Met Lys Lys Asp Leu Phe Pro Val Gly Arg
 50 55 60
 Glu Ile Ala Gly Ile Val Leu Asp Val Gly Ser Lys Val Ser Phe Phe
 65 70 75 80
 Gln Pro Asp Asp Glu Val Val Gly Ile Leu Pro Leu Asp Ser Glu Asp
 30 85 90 95
 Pro Gly Leu Cys Glu Val Val Arg Val His Glu His Tyr Leu Val His
 100 105 110
 Lys Pro Glu Lys Val Thr Trp Thr Glu Ala Ala Gly Ser Ile Arg Asp
 115 120 125
 35 Gly Val Arg Ala Tyr Thr Ala Leu His Tyr Leu Ser His Leu Ser Pro
 130 135 140
 Gly Lys Ser Val Leu Ile Met Asp Gly Ala Ser Ala Phe Gly Thr Ile
 145 150 155 160
 Ala Ile Gln Leu Ala His His Arg Gly Ala Lys Val Phe Gln Gln His
 40 165 170 175
 Ala Ala Leu Lys Ile Ser Ser Ala Leu Lys Asp Ser Asp Leu Pro
 180 185 190

<210> 414
 45 <211> 389
 <212> PRT
 <213> Homo sapiens

<400> 414
 50 Met Ala Glu Pro Asp Pro Ser His Pro Leu Glu Thr Gln Ala Gly Lys
 1 5 10 15
 Val Gln Glu Ala Gln Asp Ser Asp Ser Asp Ser Glu Gly Gly Ala Ala
 20 25 30
 Gly Gly Glu Ala Asp Met Asp Phe Leu Arg Asn Leu Phe Ser Gln Thr
 55 35 40 45
 Leu Ser Leu Gly Ser Gln Lys Glu Arg Leu Leu Asp Glu Leu Thr Leu
 50 55 60
 Glu Gly Val Ala Arg Tyr Met Gln Ser Glu Arg Cys Arg Arg Val Ile
 65 70 75 80
 60 Cys Leu Val Gly Ala Gly Ile Ser Thr Ser Ala Gly Ile Pro Asp Phe
 85 90 95
 Arg Ser Pro Ser Thr Gly Leu Tyr Asp Asn Leu Glu Lys Tyr His Leu
 100 105 110

Pro Tyr Pro Glu Ala Ile Phe Glu Ile Ser Tyr Phe Lys Lys His Pro
 115 120 125
 Glu Pro Phe Phe Ala Leu Ala Lys Glu Leu Tyr Pro Gly Gln Phe Lys
 130 135 140
 5 Pro Thr Ile Cys His Tyr Phe Met Arg Leu Leu Lys Asp Lys Gly Leu
 145 150 155 160
 Leu Leu Arg Cys Tyr Thr Gln Asn Ile Asp Thr Leu Glu Arg Ile Ala
 165 170 175
 10 Gly Leu Glu Gln Glu Asp Leu Val Glu Ala His Gly Thr Phe Tyr Thr
 180 185 190
 Ser His Cys Val Ser Ala Ser Cys Arg His Glu Tyr Pro Leu Ser Trp
 195 200 205
 Met Lys Glu Lys Ile Phe Ser Glu Val Thr Pro Lys Cys Glu Asp Cys
 210 215 220
 15 Gln Ser Leu Val Lys Pro Asp Ile Val Phe Phe Gly Glu Ser Leu Pro
 225 230 235 240
 Ala Arg Phe Phe Ser Cys Met Gln Ser Asp Phe Leu Lys Val Asp Leu
 245 250 255
 20 Leu Leu Val Met Gly Thr Ser Leu Gln Val Gln Pro Phe Ala Ser Leu
 260 265 270
 Ile Ser Lys Ala Pro Leu Ser Thr Pro Arg Leu Leu Ile Asn Lys Glu
 275 280 285
 Lys Ala Gly Gln Ser Asp Pro Phe Leu Gly Met Ile Met Gly Leu Gly
 290 295 300
 25 Gly Gly Met Asp Phe Asp Ser Lys Lys Ala Tyr Arg Asp Val Ala Trp
 305 310 315 320
 Leu Gly Glu Cys Asp Gln Gly Cys Leu Ala Leu Ala Glu Leu Leu Gly
 325 330 335
 30 Trp Lys Lys Glu Leu Glu Asp Leu Val Arg Arg Glu His Ala Ser Ile
 340 345 350
 Asp Ala Gln Ser Gly Ala Gly Val Pro Asn Pro Ser Thr Ser Ala Ser
 355 360 365
 Pro Lys Lys Ser Pro Pro Pro Ala Lys Asp Glu Ala Arg Thr Thr Glu
 370 375 380
 35 Arg Glu Lys Pro Gln
 385

 <210> 415
 <211> 481
 40 <212> PRT
 <213> Homo sapiens

 <400> 415
 Met Ser Leu Asn Leu Pro Glu Ala Ser Leu Leu Ser Arg Ala Ser Trp
 45 1 5 10 15
 Pro Glu Gln Ala Lys Glu Pro Arg Arg Glu Gly His Thr Asp Lys Gln
 20 25 30
 Gln Thr Glu Asp Val Leu Ala Ala Gly Leu Arg Cys Leu Pro His Leu
 35 40 45
 50 Pro Ala Ile Cys Ala Arg Arg Met Ser Pro Ala Phe Arg Ala Met Asp
 50 55 60
 Val Glu Pro Arg Ala Lys Gly Val Leu Leu Glu Pro Phe Val His Gln
 65 70 75 80
 Val Gly Gly His Ser Cys Val Leu Arg Phe Asn Glu Thr Thr Leu Cys
 55 85 90 95
 Lys Pro Leu Val Pro Arg Glu His Gln Phe Tyr Glu Thr Leu Pro Ala
 100 105 110
 Glu Met Arg Lys Phe Thr Pro Gln Tyr Lys Gly Val Val Ser Val Arg
 115 120 125
 60 Phe Glu Glu Asp Glu Asp Arg Asn Leu Cys Leu Ile Ala Tyr Pro Leu
 130 135 140
 Lys Gly Asp His Gly Ile Val Asp Ile Val Asp Asn Ser Asp Cys Glu
 145 150 155 160

Pro Lys Ser Lys Leu Leu Arg Trp Thr Thr Asn Lys Lys His His Val
 165 170 175
 Leu Glu Thr Glu Lys Thr Pro Lys Asp Trp Val Arg Gln His Arg Lys
 180 185 190
 5 Glu Glu Lys Met Lys Ser His Lys Leu Glu Glu Glu Phe Glu Trp Leu
 195 200 205
 Lys Lys Ser Glu Val Leu Tyr Tyr Thr Val Glu Lys Lys Gly Asn Ile
 210 215 220
 10 Ser Ser Gln Leu Lys His Tyr Asn Pro Trp Ser Met Lys Cys His Gln
 225 230 235 240
 Gln Gln Leu Gln Arg Met Lys Glu Asn Ala Lys His Arg Asn Gln Tyr
 245 250 255
 Lys Phe Ile Leu Leu Glu Asn Leu Thr Ser Arg Tyr Glu Val Pro Cys
 260 265 270
 15 Val Leu Asp Leu Lys Met Gly Thr Arg Gln His Gly Asp Asp Ala Ser
 275 280 285
 Glu Glu Lys Ala Ala Asn Gln Ile Arg Lys Cys Gln Gln Ser Thr Ser
 290 295 300
 20 Ala Val Ile Gly Val Arg Val Cys Gly Met Gln Val Tyr Gln Ala Gly
 305 310 315 320
 Ser Gly Gln Leu Met Phe Met Asn Lys Tyr His Gly Arg Lys Leu Ser
 325 330 335
 Val Gln Gly Phe Lys Glu Ala Leu Phe Gln Phe Phe His Asn Gly Arg
 340 345 350
 25 Tyr Leu Arg Arg Glu Leu Leu Gly Pro Val Leu Lys Lys Leu Thr Glu
 355 360 365
 Leu Lys Ala Val Leu Glu Arg Gln Glu Ser Tyr Arg Phe Tyr Ser Ser
 370 375 380
 30 Ser Leu Leu Val Ile Tyr Asp Gly Lys Glu Arg Pro Glu Val Val Leu
 385 390 395 400
 Asp Ser Asp Ala Glu Asp Leu Glu Asp Leu Ser Glu Glu Ser Ala Asp
 405 410 415
 Glu Ser Ala Gly Ala Tyr Ala Tyr Lys Pro Ile Gly Ala Ser Ser Val
 420 425 430
 35 Asp Val Arg Met Ile Asp Phe Ala His Thr Thr Cys Arg Leu Tyr Gly
 435 440 445
 Glu Asp Thr Val Val His Glu Gly Gln Asp Ala Gly Tyr Ile Phe Gly
 450 455 460
 40 Leu Gln Ser Leu Ile Asp Ile Val Thr Glu Ile Ser Glu Glu Ser Gly
 465 470 475 480
 Glu

<210> 416

<211> 354

45 <212> PRT

<213> Homo sapiens

<400> 416

50 Met Ser Ala Gly Gly Gly Arg Ala Phe Ala Trp Gln Val Phe Pro Pro
 1 5 10 15
 Met Pro Thr Cys Arg Val Tyr Gly Thr Val Ala His Gln Asp Gly His
 20 25 30
 Leu Leu Val Leu Gly Gly Cys Gly Arg Ala Gly Leu Pro Leu Asp Thr
 35 40 45
 55 Ala Glu Thr Leu Asp Met Ala Ser His Thr Trp Leu Ala Leu Ala Pro
 50 55 60
 Leu Pro Thr Ala Arg Ala Gly Ala Ala Ala Val Val Leu Gly Lys Gln
 65 70 75 80
 Val Leu Val Val Gly Gly Val Asp Glu Val Gln Ser Pro Val Ala Ala
 85 90 95
 60 Val Glu Ala Phe Leu Met Asp Glu Gly Arg Trp Glu Arg Arg Ala Thr
 100 105 110
 Leu Pro Gln Ala Ala Met Gly Val Ala Thr Val Glu Arg Asp Gly Met

115 120 125
 Val Tyr Ala Leu Gly Gly Met Gly Pro Asp Thr Ala Pro Gln Ala Gln
 130 135 140
 Val Arg Val Tyr Glu Pro Arg Arg Asp Cys Trp Leu Ser Leu Pro Ser
 5 145 150 155 160
 Met Pro Thr Pro Cys Tyr Gly Ala Ser Thr Phe Leu His Gly Asn Lys
 165 170 175
 Ile Tyr Val Leu Gly Gly Arg Gln Gly Lys Leu Pro Val Thr Ala Phe
 180 185 190
 10 Glu Ala Phe Asp Leu Glu Ala Arg Thr Trp Thr Arg His Pro Ser Leu
 195 200 205
 Pro Ser Arg Arg Ala Phe Ala Gly Cys Ala Met Ala Glu Gly Ser Val
 210 215 220
 Phe Ser Leu Gly Gly Leu Gln Gln Pro Gly Pro His Asn Phe Tyr Ser
 15 225 230 235 240
 Arg Pro His Phe Val Asn Thr Val Glu Met Phe Asp Leu Glu His Gly
 245 250 255
 Ser Trp Thr Lys Leu Pro Arg Ser Leu Arg Met Arg Asp Lys Arg Ala
 260 265 270
 20 Asp Phe Val Val Gly Ser Leu Gly Gly His Ile Val Ala Ile Gly Gly
 275 280 285
 Leu Gly Asn Gln Pro Cys Pro Leu Gly Ser Val Glu Ser Phe Ser Leu
 290 295 300
 Ala Arg Arg Arg Trp Glu Ala Leu Pro Ala Met Pro Thr Ala Arg Cys
 25 305 310 315 320
 Ser Cys Ser Ser Leu Gln Ala Gly Pro Arg Leu Phe Val Ile Gly Gly
 325 330 335
 Val Ala Gln Gly Pro Ser Gln Ala Val Glu Ala Leu Cys Leu Arg Asp
 340 345 350
 30 Gly Val

 <210> 417
 <211> 20
 <212> PRT
 35 <213> Homo sapiens

 <400> 417
 Met Lys Gly Leu Tyr Phe Gln Gln Ser Ser Thr Asp Glu Glu Ile Thr
 1 5 10 15
 40 Phe Val Phe Gln
 20

 <210> 418
 <211> 320
 45 <212> PRT
 <213> Homo sapiens

 <400> 418
 Met Lys Gly Leu Tyr Phe Gln Gln Ser Ser Thr Asp Glu Glu Ile Thr
 50 1 5 10 15
 Phe Val Phe Gln Glu Lys Glu Asp Leu Pro Val Thr Glu Asp Asn Phe
 20 25 30
 Val Lys Leu Gln Val Lys Ala Cys Ala Leu Ser Gln Ile Asn Thr Lys
 35 40 45
 55 Leu Leu Ala Glu Met Lys Met Lys Lys Asp Leu Phe Pro Val Gly Arg
 50 55 60
 Glu Ile Ala Gly Ile Val Leu Asp Val Gly Ser Lys Val Ser Phe Phe
 65 70 75 80
 Gln Pro Asp Asp Glu Val Val Gly Ile Leu Pro Leu Asp Ser Glu Asp
 85 90 95
 60 Pro Gly Leu Cys Glu Val Val Arg Val His Glu His Tyr Leu Val His
 100 105 110
 Lys Pro Glu Lys Val Thr Trp Thr Glu Ala Ala Gly Ser Ile Arg Asp

		115				120			125							
	Gly	Val	Arg	Ala	Tyr	Thr	Ala	Leu	His	Tyr	Leu	Ser	His	Leu	Ser	Pro
		130					135					140				
5	Gly	Lys	Ser	Val	Leu	Ile	Met	Asp	Gly	Ala	Ser	Ala	Phe	Gly	Thr	Ile
	145					150					155					160
	Ala	Ile	Gln	Leu	Ala	His	His	Arg	Gly	Ala	Lys	Val	Ile	Ser	Thr	Ala
					165				170						175	
	Cys	Ser	Leu	Glu	Asp	Lys	Gln	Cys	Leu	Glu	Arg	Phe	Arg	Pro	Pro	Ile
				180					185					190		
10	Ala	Arg	Val	Ile	Asp	Val	Ser	Asn	Gly	Lys	Val	His	Val	Ala	Glu	Ser
		195						200					205			
	Cys	Leu	Glu	Glu	Thr	Gly	Gly	Leu	Gly	Val	Asp	Ile	Val	Leu	Asp	Ala
		210					215					220				
	Gly	Val	Arg	Leu	Tyr	Ser	Lys	Asp	Asp	Glu	Pro	Ala	Val	Lys	Leu	Gln
15	225					230				235						240
	Leu	Leu	Pro	His	Lys	His	Asp	Ile	Ile	Thr	Leu	Leu	Gly	Val	Gly	Gly
					245					250					255	
	His	Trp	Val	Thr	Thr	Glu	Glu	Asn	Leu	Gln	Leu	Asp	Pro	Pro	Asp	Ser
				260					265					270		
20	His	Cys	Leu	Phe	Leu	Lys	Gly	Ala	Thr	Leu	Ala	Phe	Leu	Asn	Asp	Glu
		275						280					285			
	Val	Trp	Asn	Leu	Ser	Asn	Val	Gln	Gln	Gly	Lys	Tyr	Leu	Tyr	Leu	Lys
		290					295				300					
	Gly	Cys	Asp	Gly	Glu	Val	Ile	Asn	Trp	Cys	Phe	Gln	Thr	Ser	Val	Gly
25	305					310					315					320

<210> 419

<211> 159

<212> PRT

30 <213> Homo sapiens

<400> 419

	Met	Glu	Lys	Leu	Arg	Arg	Val	Leu	Ser	Gly	Gln	Asp	Asp	Glu	Glu	Gln
	1				5					10					15	
35	Gly	Leu	Thr	Ala	Gln	Val	Leu	Asp	Ala	Ser	Ser	Leu	Ser	Phe	Asn	Thr
				20					25					30		
	Arg	Leu	Lys	Trp	Phe	Ala	Ile	Cys	Phe	Val	Cys	Gly	Val	Phe	Phe	Ser
		35						40					45			
	Ile	Leu	Gly	Thr	Gly	Leu	Leu	Trp	Leu	Pro	Gly	Gly	Ile	Lys	Leu	Phe
40		50					55					60				
	Ala	Val	Phe	Tyr	Thr	Leu	Gly	Asn	Leu	Ala	Ala	Leu	Ala	Ser	Thr	Cys
		65				70				75					80	
	Phe	Leu	Met	Gly	Pro	Val	Lys	Gln	Leu	Lys	Lys	Met	Phe	Glu	Ala	Thr
					85					90				95		
45	Arg	Leu	Leu	Ala	Thr	Ile	Val	Met	Leu	Leu	Cys	Phe	Ile	Phe	Thr	Leu
				100					105					110		
	Cys	Ala	Ala	Leu	Trp	Trp	His	Lys	Lys	Gly	Leu	Ala	Val	Leu	Phe	Cys
		115						120					125			
	Ile	Leu	Gln	Phe	Leu	Ser	Met	Thr	Trp	Tyr	Ser	Leu	Ser	Tyr	Ile	Pro
50		130					135					140				
	Tyr	Ala	Arg	Asp	Ala	Val	Ile	Lys	Cys	Cys	Ser	Ser	Leu	Leu	Ser	
	145					150					155					

<210> 420

55 <211> 183

<212> PRT

<213> Homo sapiens

<400> 420

60	Met	Glu	Gln	Arg	Leu	Ala	Glu	Phe	Arg	Ala	Ala	Arg	Lys	Arg	Ala	Gly
	1				5					10					15	
	Leu	Ala	Ala	Gln	Pro	Pro	Ala	Ala	Ser	Gln	Gly	Ala	Gln	Thr	Pro	Gly
				20					25					30		

Glu Lys Ala Glu Ala Ala Ala Thr Leu Lys Ala Ala Pro Gly Trp Leu
 35 40 45
 Lys Arg Phe Leu Val Trp Lys Pro Arg Pro Ala Ser Ala Arg Ala Gln
 50 55 60
 5 Pro Gly Leu Val Gln Glu Ala Ala Gln Pro Gln Gly Ser Thr Ser Glu
 65 70 75 80
 Thr Pro Trp Asn Thr Ala Ile Pro Leu Pro Ser Cys Trp Asp Gln Ser
 85 90 95
 10 Phe Leu Thr Asn Ile Thr Phe Leu Lys Val Leu Leu Trp Leu Val Leu
 100 105 110
 Leu Gly Leu Phe Val Glu Leu Glu Phe Gly Leu Ala Tyr Phe Val Leu
 115 120 125
 Ser Leu Phe Tyr Trp Met Tyr Val Gly Thr Arg Gly Pro Glu Glu Lys
 130 135 140
 15 Lys Glu Gly Glu Lys Ser Ala Tyr Ser Val Phe Asn Pro Gly Cys Glu
 145 150 155 160
 Ala Ile Gln Gly Thr Leu Thr Ala Glu Gln Leu Glu Arg Glu Leu Gln
 165 170 175
 Leu Arg Pro Leu Ala Gly Arg
 20 180

<210> 421

<211> 143

<212> PRT

25 <213> Homo sapiens

<400> 421
 Met Ala Ala Pro Arg Arg Gly Arg Gly Ser Ser Thr Val Leu Ser Ser
 1 5 10 15
 30 Val Pro Leu Gln Met Leu Phe Tyr Leu Ser Gly Thr Tyr Tyr Ala Leu
 20 25 30
 Tyr Phe Leu Ala Thr Leu Leu Met Ile Thr Tyr Lys Ser Gln Val Phe
 35 40 45
 Ser Tyr Pro His Arg Tyr Leu Val Leu Asp Leu Ala Leu Leu Phe Leu
 50 55 60
 35 Met Gly Ile Leu Glu Ala Val Arg Leu Tyr Leu Gly Thr Arg Gly Asn
 65 70 75 80
 Leu Thr Glu Ala Glu Arg Pro Leu Ala Ala Ser Leu Ala Leu Thr Ala
 85 90 95
 40 Gly Thr Ala Leu Leu Ser Ala His Phe Leu Leu Trp Gln Ala Leu Val
 100 105 110
 Leu Trp Ala Asp Trp Ala Leu Ser Ala Thr Leu Leu Ala Leu His Gly
 115 120 125
 Leu Glu Ala Val Leu Gln Val Val Ala Ile Ala Ala Phe Thr Arg
 45 130 135 140

<210> 422

<211> 73

<212> PRT

50 <213> Homo sapiens

<400> 422
 Met Ser Gly Val Pro Ala Glu Met Thr Gly Ala Val Glu Ala Phe Leu
 1 5 10 15
 55 Pro Val Val Ser Ser Arg Arg Leu Pro Arg Phe Val His Met Val
 20 25 30
 Ala Gly Val Ser Ser Lys Gln Glu Arg Ala Arg Ser Asn Thr Glu Ala
 35 40 45
 Leu Phe Lys Leu Cys Phe His His Ile Cys Gln Cys Leu Thr Asp Glu
 50 55 60
 60 His Lys Phe His Gly Gln Val Gln Phe
 65 70

<210> 423
 <211> 142
 <212> PRT
 <213> Homo sapiens

5

<400> 423

Met Pro Pro Phe Gly Gly His Pro Leu Ser Gln Glu Glu Asp Gly Ser
 1 5 10 15
 Gln Arg Cys Cys Cys Leu Ser Ser Leu Arg Ser Val Asp Asp Ser Asn
 10 20 25 30
 Gly Glu Thr Val Val Ile Met Ala Leu Phe Leu Ala Val Ser Tyr His
 35 40 45
 His Lys Thr Gln Ser Lys Arg Trp Pro Gly Leu Thr Pro Pro His Ser
 50 55 60
 15 Ser Leu Leu Cys Arg Pro Leu Gln Leu Ser Phe Leu Val Ile Gln Ser
 65 70 75 80
 Val Arg Met Arg Ala Cys Gly Cys Asp Ser Gly His Cys Arg Ile Leu
 85 90 95
 Gly Arg Tyr Ser Leu Leu Gly Trp Ser Gln Gly His Arg Ala Arg Gly
 100 105 110
 20 Arg Gly Gly Val Ser Leu Arg Asp Asn Thr Phe Phe Gln Glu Ala Ser
 115 120 125
 Glu Gly Gln Gly Gln Trp Leu Met Pro Val Ile Pro Ala Phe
 130 135 140

25

<210> 424
 <211> 149
 <212> PRT
 <213> Homo sapiens

30

<400> 424

Met Leu Ser Ile Leu Lys Pro Arg Arg Ser Gln Glu Trp Arg Thr Ala
 1 5 10 15
 Leu Arg Arg Tyr Cys Cys Pro Thr Asp Leu Gln Ala Pro Arg Ser Pro
 15 20 25 30
 Val Pro Pro Ile Arg Lys Val Gly Ile Ser Asp Val Ile Val His Ala
 35 40 45
 Asn Leu Ala Thr Ser Leu Lys Lys Asn Thr Cys Asn Cys Gln Ala Asp
 50 55 60
 40 Leu Leu Ser Trp Arg Ser Trp Val Asn Gly Ile Ser Cys His Cys Pro
 65 70 75 80
 Asn Leu Arg Pro Leu Ser Lys Ser Ile Phe Arg Asp Ser Thr Ser Leu
 85 90 95
 Cys Ser Leu Ser Gln Gln Arg Leu Cys Pro Leu His Ser Lys Pro Glu
 100 105 110
 45 Ala Cys Trp Gly Leu Phe Val Ser Val His Ala His Phe Arg Val Gln
 115 120 125
 Ala Gly Gly Arg Gly Asn Arg Val Gly Lys Lys Thr Arg Val Ser Arg
 130 135 140
 50 Asn Asp Glu Thr Leu
 145

<210> 425
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 425

Met Tyr Leu Pro Pro Asn Arg Ser Glu Leu Cys Asn Phe Ala Leu Ser
 1 5 10 15
 Leu Asn Leu Tyr Gly Lys Gly Phe Phe Ser Leu Val Glu Lys His Asn
 20 25 30
 Ser Arg Asp Leu Glu Asp Arg Ala Ser Ser Gly Pro Ser Leu Ser Ser

35
 Pro Ser His Pro Asp Trp Gly Tyr Ile Val Leu Ile Leu Val Ala Thr
 50
 Leu Gly Glu Leu Asp Thr Gln Val Gly Gly His
 5 65 70 75

<210> 426

<211> 168

<212> PRT

10 <213> Homo sapiens

<400> 426

Met Arg Leu Thr Glu Lys Ser Glu Gly Glu Gln Gln Leu Lys Pro Asn
 1 5 10 15
 15 Asn Ser Asn Ala Pro Asn Glu Asp Gln Glu Glu Glu Ile Gln Gln Ser
 20 25 30
 Glu Gln His Thr Pro Ala Arg Gln Arg Thr Gln Arg Ala Asp Thr Gln
 35 40 45
 20 Pro Ser Arg Cys Arg Leu Pro Ser Arg Arg Thr Pro Thr Thr Ser Ser
 50 55 60
 Asp Arg Thr Ile Asn Leu Glu Val Leu Pro Trp Pro Thr Glu Trp
 65 70 75 80
 Ile Phe Asn Pro Tyr Arg Leu Pro Ala Leu Phe Glu Leu Tyr Pro Glu
 85 90 95
 25 Phe Leu Leu Val Phe Lys Glu Ala Phe His Asp Ile Ser His Cys Leu
 100 105 110
 Lys Ala Gln Met Glu Lys Ile Gly Leu Pro Ile Ile Leu His Leu Phe
 115 120 125
 30 Ala Leu Ser Thr Leu Tyr Phe Tyr Lys Phe Phe Leu Pro Thr Ile Leu
 130 135 140
 Ser Leu Ser Phe Phe Ile Leu Leu Val Leu Leu Leu Leu Phe Ile
 145 150 155 160
 Ile Val Phe Ile Leu Ile Phe Phe
 165

35

<210> 427

<211> 160

<212> PRT

40 <213> Homo sapiens

<400> 427

Met Pro Arg Ser Ser Arg Ser Pro Gly Asp Pro Gly Ala Leu Leu Glu
 1 5 10 15
 45 Asp Val Ala His Asn Pro Arg Pro Arg Arg Ile Ala Gln Arg Gly Arg
 20 25 30
 Asn Thr Ser Arg Met Ala Glu Asp Thr Ser Pro Asn Met Asn Asp Asn
 35 40 45
 Ile Leu Leu Pro Val Arg Asn Asn Asp Gln Ala Leu Gly Leu Thr Gln
 50 55 60
 50 Cys Met Leu Gly Cys Val Ser Trp Phe Thr Cys Phe Ala Cys Ser Leu
 65 70 75 80
 Arg Thr Gln Ala Gln Gln Val Leu Phe Asn Thr Cys Arg Asp Arg Val
 85 90 95
 Ser Pro Cys Cys Pro Gly Trp Ser Gln Thr Pro Val Ile Leu Pro Pro
 100 105 110
 55 Gln Pro Ser Glu Val Leu Gly Leu Gln Met Gln Ala Ala Val Pro Glu
 115 120 125
 Ala His Gly Glu Asp Arg His Ser Ala Pro Leu Cys Phe Arg Cys Val
 130 135 140
 60 Pro Gly Pro Cys Pro Val Pro Gly Gly Gly Ile Pro Gly Pro Trp His
 145 150 155 160

<210> 428

<211> 94
 <212> PRT
 <213> Homo sapiens

5 <400> 428
 Met Asn Lys Glu Ile Asp Ser Leu Asn Leu Ala Tyr Ser Phe Pro Phe
 1 5 10 15
 Leu Leu Pro Ala Phe Leu Asp Thr Pro Trp Thr Asp Pro Phe Pro Ser
 20 25 30
 10 Gly Phe Met Val Arg Ser Arg Val Leu Leu Ile Gln Leu Leu Ser Arg
 35 40 45
 Pro Arg Ser Ser Gln Glu Ser Arg Gly His Ser Leu Pro Cys Ser Pro
 50 55 60
 Ser Ala Leu His Lys Pro Gly Gly Ile Cys Pro Ala Ala Leu Gly Arg
 15 65 70 75 80
 Ser His Leu Leu Val Trp Glu Gln Pro Ser Leu Arg Asp Ser
 85 90

<210> 429
 20 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 429
 25 Met Lys Ala Ser Gly Pro Asp Leu Ser Asp Gly Leu His Cys Pro Ser
 1 5 10 15
 Leu Ile Arg His Leu Arg Thr Phe Ser Ala Ala Ala Ala Leu Ala Pro
 20 25 30
 Arg Tyr Pro Thr Arg Leu Pro Ser Leu Leu Leu Trp His Leu Cys
 30 35 40 45
 Gln Cys Leu His Leu Leu Tyr Ala Val Ser Thr Ser Cys Asn Ser His
 50 55 60
 Gly Lys Arg Ser Ala Ala Trp Ala Met Thr Arg Thr Glu Asp Thr Asp
 65 70 75 80
 35 Ala Leu Thr Asp Ser Phe Asp Asp Ser Phe Ile Ser Ser Ala Asp
 85 90 95

<210> 430
 <211> 99
 40 <212> PRT
 <213> Homo sapiens

<400> 430
 45 Met Lys Lys Lys Glu Glu Thr Thr Leu Ser Glu Met Glu Pro Val Glu
 1 5 10 15
 Pro Gln Tyr Gln Leu Val Asn Ala Glu Ser Thr Ser Pro Phe Leu His
 20 25 30
 Cys Leu Arg Glu Val Ile Gly Glu Tyr Ser Val His Glu Phe Ser Leu
 35 40 45
 50 Leu Gly Lys Thr Glu Ser Gln Gly Ile Gly Leu Trp Ile Ala Leu Val
 50 55 60
 Val Phe Leu Ser Phe Leu Ile Phe Ser Thr Ser Phe Tyr Ile Ser Asn
 65 70 75 80
 Ala Glu Gln Pro Phe Phe Lys Glu Pro Pro Thr Glu Ala Ala Lys Glu
 55 85 90 95
 Leu Ser Leu

<210> 431
 <211> 122
 60 <212> PRT
 <213> Homo sapiens

<400> 431

Ile Arg Ala Thr Met Val Ala Arg Val Trp Ser Leu Met Arg Phe Leu
 1 5 10 15
 Ile Lys Gly Ser Val Ala Gly Gly Ala Val Tyr Leu Val Tyr Asp Gln
 20 25 30
 5 Glu Leu Leu Gly Pro Ser Asp Lys Ser Gln Ala Ala Leu Gln Lys Ala
 35 40 45
 Gly Glu Val Val Pro Pro Ala Met Tyr Gln Phe Ser Gln Tyr Val Cys
 50 55 60
 Gln Gln Thr Gly Leu Gln Ile Pro Gln Leu Pro Ala Pro Pro Lys Ile
 10 65 70 75 80
 Tyr Phe Pro Ile Arg Asp Ser Trp Asn Ala Gly Ile Met Thr Val Met
 85 90 95
 Ser Ala Leu Ser Val Ala Pro Ser Lys Ala Arg Glu Tyr Ser Lys Glu
 100 105 110
 15 Gly Trp Glu Tyr Val Lys Ala Arg Thr Lys
 115 120

<210> 432
 <211> 118
 20 <212> PRT
 <213> Homo sapiens

<400> 432
 Met Gln Pro Ser Leu Leu Arg Ser Tyr Arg Leu Lys Ala Gln Leu Ser
 25 1 5 10 15
 Leu Ser Ser Thr Val Pro Arg Arg Ile Thr Asp Lys Pro Ala Thr Lys
 20 25 30
 Ser Trp Glu Gly Gly Arg Arg Glu Leu Cys Pro Arg Val Leu Phe Thr
 35 40 45
 30 Gln Leu Leu Leu Trp Val Trp Pro Gly Asp Pro Gly Pro Glu Leu Gln
 50 55 60
 Glu Thr Gly Phe Pro Gly Pro Pro Arg Pro Ala His Leu Lys Thr Asp
 65 70 75 80
 Arg Ala Ile Met Val Gly Val Lys Gly Ile Glu Glu Lys Ser Gly Ile
 35 85 90 95
 Gly Ala Gly Val Cys Arg Val Ser Val Glu Lys Leu Ala Ser Thr Gln
 100 105 110
 Glu Arg Thr Ser Ser Leu
 115

40 <210> 433
 <211> 49
 <212> PRT
 <213> Homo sapiens

45 <400> 433
 Met Glu Leu Glu Ala Met Ser Arg Tyr Thr Ser Pro Val Asn Pro Pro
 1 5 10 15
 Val Phe Pro His Leu Thr Val Val Leu Leu Ala Ile Gly Met Phe Phe
 50 20 25 30
 Thr Ala Trp Phe Phe Val Tyr Pro Phe Thr Glu Gln Pro Glu Asp Gln
 35 40 45
 His

55 <210> 434
 <211> 89
 <212> PRT
 <213> Homo sapiens

60 <400> 434
 Met Leu Ala Leu Phe His Phe His Leu Pro Pro Trp Asp Asp Ala Val
 1 5 10 15
 Arg Arg Pro Ser Val Asp Ala Ser Pro Ser Thr Leu Asn Phe Pro Asp

20 25 30
 Ala Glu Leu Tyr Ala Ser Ile Phe Leu Cys Cys Met Ala Pro Gly Glu
 35 40 45
 Ile Leu Ile Ser Phe Leu Thr Val Gln Ile Ala His Ala Asn Gly
 5 50 55 60
 Arg Gly Cys Asn Thr Pro Ala Cys Gly Ala Ala Ala Cys Val Trp His
 65 70 75 80
 Glu Asn Ser Gln Glu Glu Arg Lys Tyr
 85
 10
 <210> 435
 <211> 87
 <212> PRT
 <213> Homo sapiens
 15
 <400> 435
 Met Ser Gln Gln His Arg Arg Lys Arg Pro Ser Ser Glu Arg Lys Ser
 1 5 10 15
 Thr Arg Lys Met Asp Thr Trp Gln Ser Leu Lys Val Lys Glu Val Phe
 20 20 25 30
 Cys Lys His Asn Ser Ser Tyr Glu Cys Leu Leu Tyr Lys Glu Val Glu
 35 40 45
 Ala Arg Gln Val Ser Lys Thr Ala Thr Asp Gly Ser Tyr Leu Leu Val
 50 55 60
 25 Phe Thr Ser Tyr Val Ile Ser Ser Pro Val Trp Thr Gly Pro Gly Asp
 65 70 75 80
 Leu Leu Pro Val Asn Arg Ile
 85
 30 <210> 436
 <211> 45
 <212> PRT
 <213> Homo sapiens
 35 <400> 436
 Met Pro Arg Ser Ser Arg Ser Pro Gly Asp Pro Gly Ala Leu Leu Glu
 1 5 10 15
 Asp Gly Pro Gln Ser Gln Thr Pro Glu Asp Cys Pro Ala Arg Pro Glu
 20 25 30
 40 His Gln Gln Asp Gly Arg Gly His Leu Pro Lys His Glu
 35 40 45
 <210> 437
 <211> 65
 45 <212> PRT
 <213> Homo sapiens
 <400> 437
 Met Ala Tyr Leu Asp Asp Lys Gly Ser Leu Leu Ala Ile His Ser His
 50 1 5 10 15
 Ala Arg Gln His Ser His Glu Thr Asn Gln Val His Gln Trp Leu Pro
 20 25 30
 Arg Asn Thr Phe Ala Phe Leu Ile Lys Glu Asp Arg Cys Ser Cys Arg
 35 40 45
 55 Ser Thr Cys Ala Ser Phe Ser Phe Ser Ser Ser Phe Ser Phe Leu Ile
 50 55 60
 Ser
 65
 60 <210> 438
 <211> 112
 <212> PRT
 <213> Homo sapiens

<400> 438
 Met Arg Lys Lys Cys Lys Cys Phe Thr Ile Lys Lys Thr Asn Thr Tyr
 1 5 10 15
 5 Glu Glu Ser Asn Ala Gly Asn Glu Gly Gln Lys Glu Ala Ile Ser Ile
 20 25 30
 Cys Ile Cys Arg Arg Asp Gly Leu Leu Pro Leu Trp Val Thr Arg Leu
 35 40 45
 Ser Asp Leu Val Phe Ser Lys Glu Lys Ala His Gly Met Ile Pro Leu
 10 50 55 60
 Leu Gly Ser His Arg Glu Lys Lys Thr Ser Lys Glu Met Lys Thr Ser
 65 70 75 80
 Ser Arg Asn Leu Arg Tyr Phe Ile Val Cys Arg Asp Ala Ser Ser Tyr
 85 90 95
 15 Thr Pro Gln Ser Leu Ile Ser Gly Tyr Ile Gly Pro Cys Gln His Gln
 100 105 110

<210> 439
 <211> 110
 20 <212> PRT
 <213> Homo sapiens

<400> 439
 Met Val Phe Gly Ala Met Val Leu Leu Val Gly Leu Glu Glu Leu Thr
 25 1 5 10 15
 Asn Ile Arg Asn Val Glu Arg Leu Lys Lys Asp Leu Arg Ala Ser Tyr
 20 25 30
 Cys Leu Ile Asp Ser Phe Leu Gly Asp Ser Glu Leu Ile Gly Asp Leu
 35 40 45
 30 Thr Gln Cys Val Asp Cys Val Ile Pro Pro Glu Gly Ser Leu Leu Gln
 50 55 60
 Ile Ser Ser Tyr Leu Tyr Leu Asn Thr Ala Leu Val Asp Leu Pro Gly
 65 70 75 80
 Val Ala Ala Ser Gln Ala Cys Asp Ser Gln Gln Val Thr Trp Leu Leu
 35 85 90 95
 Tyr Val Ala Asn Gly Ala Tyr Ser Ala Cys Asn Arg Pro Gly
 100 105 110

<210> 440
 40 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 440
 45 Thr Ser Ser Ser Gly Ala Glu Val Thr Met Ala Ala Ala Leu Ala Arg
 1 5 10 15
 Leu Gly Leu Arg Pro Val Lys Gln Val Arg Val Gln Phe Cys Pro Phe
 20 25 30
 Glu Lys Asn Val Glu Ser Thr Arg Thr Phe Leu Gln Thr Val Ser Ser
 50 35 40 45
 Glu Lys Val Arg Ser Thr Asn Leu Asn Cys Ser Val Ile Ala Asp Val
 50 55 60
 Arg His Asp Gly Ser Glu Pro Cys Val Asp Val Leu Phe Gly Asp Gly
 65 70 75 80
 55 His Arg Leu Ile Met Arg Gly Ala His Leu Thr Ala Leu Glu Met Leu
 85 90 95
 Thr Ala Phe Ala Ser His Ile Arg Ala Arg Asp Ala Ala Gly Ser Gly
 100 105 110
 60 Asp Lys Pro Gly Ala Asp Thr Gly Arg
 115 120

<210> 441
 <211> 99

<212> PRT

<213> Homo sapiens

<400> 441

5 Met Leu Ala Arg Ala Thr Phe Arg Ala Ala Ser Ala Pro Thr Leu Val
 1 5 10 15
 Ala Arg Arg Gly Phe Gln Ser Thr Arg Ala Gln Met Ala Ser Pro Tyr
 20 25 30
 10 His Tyr Pro Glu Gly Pro Arg Ser Asn Leu Pro Phe Asp Pro Leu Lys
 35 40 45
 Lys Gly Phe Ala Phe Lys Tyr Trp Gly Phe Met Gly Thr Gly Phe Ala
 50 55 60
 Leu Pro Phe Leu Leu Ala Val Trp Gln Thr Glu Gln Ala Val Asn Ala
 65 70 75 80
 15 Leu Arg His Gly Val Asp Met Arg Ile Gly Ile Pro Gly Asn Thr Ala
 85 90 95
 Phe Val Asp

<210> 442

20 <211> 183

<212> PRT

<213> Homo sapiens

<400> 442

25 Arg Glu Gly Ala Arg Ala Arg Pro Ser Pro Thr Met Ser Asp Glu Ala
 1 5 10 15
 Ser Ala Ile Thr Ser Tyr Glu Lys Phe Leu Thr Pro Glu Glu Pro Phe
 20 25 30
 30 Pro Leu Leu Gly Pro Pro Arg Gly Val Gly Thr Cys Pro Ser Glu Glu
 35 40 45
 Pro Gly Cys Leu Asp Ile Ser Asp Phe Gly Cys Gln Leu Ser Ser Cys
 50 55 60
 His Arg Thr Asp Pro Leu His Arg Phe His Thr Asn Arg Trp Asn Leu
 65 70 75 80
 35 Thr Ser Cys Gly Thr Ser Val Ala Ser Ser Glu Gly Ser Glu Glu Leu
 85 90 95
 Phe Ser Ser Val Ser Val Gly Asp Gln Asp Asp Cys Tyr Ser Leu Leu
 100 105 110
 40 Asp Asp Gln Asp Phe Thr Ser Phe Asp Leu Phe Pro Glu Gly Ser Val
 115 120 125
 Cys Ser Asp Val Ser Ser Ser Ile Ser Thr Tyr Trp Asp Trp Ser Asp
 130 135 140
 Ser Glu Phe Glu Trp Gln Leu Pro Gly Ser Asp Ile Ala Ser Gly Ser
 145 150 155 160
 45 Asp Val Leu Ser Asp Val Ile Pro Ser Ile Pro Ser Ser Pro Cys Leu
 165 170 175
 Leu Pro Lys Lys Lys Lys
 180

50 <210> 443

<211> 94

<212> PRT

<213> Homo sapiens

55 <400> 443

Met Ser Asp Glu Ala Ser Ala Ile Thr Ser Tyr Glu Lys Phe Leu Thr
 1 5 10 15
 Pro Glu Glu Pro Phe Pro Leu Leu Gly Pro Pro Arg Gly Val Gly Thr
 20 25 30
 60 Cys Pro Ser Glu Glu Pro Gly Cys Leu Asp Ile Ser Asp Phe Gly Cys
 35 40 45
 Gln Leu Ser Ser Cys His Arg Thr Asp Pro Leu His Arg Phe His Thr
 50 55 60

Asn Arg Trp Asn Leu Thr Ser Cys Gly Thr Ser Val Ala Ser Ser Glu
 65 70 75 80
 Gly Ser Glu Glu Leu Phe Ser Ser Val Cys Trp Arg Ser Arg
 85 90

5

<210> 444
 <211> 105
 <212> PRT
 <213> Homo sapiens

10

<400> 444
 Ile Gly Pro Arg Ala Pro Ser Pro Ser Phe Ser Val Arg Asp Val Glu
 1 5 10 15
 Leu Ser Asp Pro Ala Arg Glu Arg Gly Glu Met Pro Val Ala Val Gly
 15 20 25 30
 Pro Tyr Gly Gln Ser Gln Pro Ser Cys Phe Asp Arg Val Lys Met Gly
 35 40 45
 Phe Val Met Gly Cys Ala Val Gly Met Ala Ala Gly Ala Leu Phe Gly
 50 55 60
 Thr Phe Ser Cys Leu Arg Ile Gly Met Arg Gly Arg Glu Leu Met Gly
 20 65 70 75 80
 Gly Ile Gly Lys Thr Met Met Gln Ser Gly Gly Thr Phe Gly Thr Phe
 85 90 95
 Met Ala Ile Gly Met Gly Ile Arg Cys
 25 100 105

<210> 445
 <211> 163
 <212> PRT

30 <213> Homo sapiens

<400> 445
 Met Pro Arg Ser Ser Arg Ser Pro Gly Asp Pro Gly Ala Leu Leu Glu
 1 5 10 15
 35 Asp Val Ala His Asn Pro Arg Pro Arg Arg Ile Ala Gln Arg Gly Arg
 20 25 30
 Asn Thr Ser Arg Met Ala Glu Asp Thr Ser Pro Asn Met Asn Asp Asn
 35 40 45
 Ile Leu Leu Pro Val Arg Asn Asn Asp Gln Ala Leu Gly Leu Thr Gln
 40 50 55 60
 Cys Met Leu Gly Cys Val Ser Trp Phe Thr Cys Phe Ala Cys Ser Leu
 65 70 75 80
 Arg Thr Gln Ala Gln Gln Val Leu Phe Asn Thr Cys Arg Cys Lys Leu
 85 90 95
 45 Leu Cys Gln Lys Leu Met Glu Lys Thr Gly Ile Leu Leu Leu Cys Ala
 100 105 110
 Phe Gly Val Ser Gln Gly Pro Ala Gln Ser Gln Val Glu Val Ser Leu
 115 120 125
 Gly Pro Gly Thr Asp Tyr Arg Thr Leu Gly Lys Thr Leu His Cys His
 50 130 135 140
 Val Thr Gln Phe Pro His Leu Pro Asp Gly Cys Cys Cys Glu Asn Tyr
 145 150 155 160
 Glu Met Lys

55

<210> 446
 <211> 128
 <212> PRT
 <213> Homo sapiens

60

<400> 446
 Met Glu Asp Lys Glu Ile Pro Ile Lys Ser Glu Pro Leu Pro Lys Pro
 1 5 10 15
 Pro Ala Ser Ala Pro Pro Ser Ile Leu Val Lys Pro Glu Asn Ser Arg

20 25 30
 Asn Gly Ile Glu Lys Gln Val Lys Thr Val Arg Phe Gln Asn Tyr Ser
 35 40 45
 5 Pro Pro Pro Thr Lys His Tyr Thr Ser His Pro Thr Ser Gly Lys Pro
 50 55 60
 Glu Gln Pro Ala Thr Leu Lys Ala Ser Gln Pro Glu Ala Ala Ser Leu
 65 70 75 80
 Gly Pro Glu Met Thr Val Leu Phe Ala His Arg Ser Gly Cys His Ser
 85 90 95
 10 Gly Gln Gln Thr Asp Leu Arg Arg Lys Ser Ala Leu Ala Lys Ala Thr
 100 105 110
 Thr Leu Val Ser Thr Ala Ser Gly Thr Gln Thr Val Phe Pro Ser Lys
 115 120 125

 15 <210> 447
 <211> 96
 <212> PRT
 <213> Homo sapiens

 20 <400> 447
 Met Leu Thr Arg Val Glu Glu Gln Lys Lys Met Val Lys Ala Cys Arg
 1 5 10 15
 Tyr Arg Cys Ser Ala Cys His Leu Lys Tyr Ser Pro Gln Arg Gln Lys
 20 25 30
 25 Glu Arg Lys Leu Ser Leu Lys Arg Gly Arg Thr Ser Gln Gln Asn Met
 35 40 45
 Ser Met Phe Trp Leu Lys Lys Leu Leu Glu Ser Gly Leu Phe Cys Ala
 50 55 60
 Met Cys Ser Pro Arg Ala Ser Thr Lys Lys Gly Phe Trp Cys Arg Pro
 30 65 70 75 80
 Lys Thr Thr Ile Ile Ile Ile Asp Tyr Ser Ser Pro Arg Gln Cys Leu
 85 90 95

 <210> 448
 35 <211> 160
 <212> PRT
 <213> Homo sapiens

 <220>
 40 <221> UNSURE
 <222> 114
 <223> Xaa = Glu,Val

 <220>
 45 <221> UNSURE
 <222> 113
 <223> Xaa = His,Gln

 <220>
 50 <221> UNSURE
 <222> 115
 <223> Xaa = Ile,Val

 <400> 448
 55 Met Gly Lys Ile Ala Leu Gln Leu Lys Ala Thr Leu Glu Asn Ile Thr
 1 5 10 15
 Asn Leu Arg Pro Val Gly Glu Asp Phe Arg Trp Tyr Leu Lys Met Lys
 20 25 30
 Cys Gly Asn Cys Gly Glu Ile Ser Asp Lys Trp Gln Tyr Ile Arg Leu
 35 40 45
 60 Met Asp Ser Val Ala Leu Lys Gly Gly Arg Gly Ser Ala Ser Met Val
 50 55 60
 Gln Lys Cys Lys Leu Cys Ala Arg Glu Asn Ser Ile Glu Ile Leu Ser

65 70 75 80
 Ser Thr Ile Lys Pro Tyr Asn Ala Glu Asp Asn Glu Asn Phe Lys Thr
 85 90 95
 Ile Val Glu Phe Glu Cys Arg Gly Leu Glu Pro Val Asp Phe Gln Pro
 100 105 110
 5 Xaa Xaa Xaa Leu Leu Leu Lys Val Trp Ser Gln Gly Gln Pro Ser Val
 115 120 125
 Thr Leu Ile Cys Arg Arg Arg Thr Gly Thr Asp Tyr Asp Glu Lys Ala
 130 135 140
 10 Gln Glu Ser Val Gly Ile Tyr Glu Val Thr His Gln Phe Val Lys Cys
 145 150 155 160

 <210> 449
 <211> 117
 15 <212> PRT
 <213> Homo sapiens

 <400> 449
 20 Met Asp Ser Leu Ala Ala Gly Glu Leu Asn Ala Ser His Gln Pro Trp
 1 5 10 15
 Val Pro Glu Phe Val Ala Tyr Trp Arg Lys Thr His Gln Asp His Leu
 20 25 30
 Cys Ser Leu His Ser Arg Ala Phe Gly Leu Leu Asp Ala Arg Val Thr
 35 40 45
 25 Trp Ala Leu Arg Arg Ala Pro Glu Pro Val Pro Gly Lys Asp Arg Leu
 50 55 60
 Leu Leu Ala Ala Phe Pro Ala Glu Ala Ser Pro Val Asp Thr Ala Ser
 65 70 75 80
 Val Ser Val Tyr Gly Arg Ala Pro Arg Tyr Met His Lys Gly Val Lys
 85 90 95
 30 Lys Cys Val Cys Thr Pro Val Ser Lys Asn Ser Thr Ala Trp Leu Leu
 100 105 110
 Leu Gly Gly Ile Ser
 115
 35
 <210> 450
 <211> 335
 <212> PRT
 <213> Homo sapiens
 40
 <400> 450
 Met Cys Cys Gln Val Cys Glu Ala Val Arg Ser Gly Asn Glu Glu Val
 1 5 10 15
 Leu Ala Asp Val Arg Thr Ile Val Asn Gln Ile Ser Tyr Thr Pro Gln
 20 25 30
 45 Asp Pro Arg Asp Leu Cys Gly Arg Ile Leu Thr Thr Cys Tyr Met Ala
 35 40 45
 Ser Lys Asn Ser Ser Gln Glu Thr Cys Thr Arg Ala Arg Glu Leu Ala
 50 55 60
 Gln Gln Ile Gly Ser His His Ile Ser Leu Asn Ile Asp Pro Ala Val
 65 70 75 80
 Lys Ala Val Met Gly Ile Phe Ser Leu Val Thr Gly Lys Ser Pro Leu
 85 90 95
 Phe Ala Ala His Gly Gly Ser Ser Arg Glu Asn Leu Ala Leu Gln Asn
 100 105 110
 55 Val Gln Ala Arg Ile Arg Met Val Leu Ala Tyr Leu Phe Ala Gln Leu
 115 120 125
 Ser Leu Trp Ser Arg Gly Val His Gly Gly Leu Leu Val Leu Gly Ser
 130 135 140
 60 Ala Asn Val Asp Glu Ser Leu Leu Gly Tyr Leu Thr Lys Tyr Asp Cys
 145 150 155 160
 Ser Ser Ala Asp Ile Asn Pro Ile Gly Gly Ile Ser Lys Thr Asp Leu
 165 170 175

Arg Ala Phe Val Gln Phe Cys Ile Gln Arg Phe Gln Leu Pro Ala Leu
 180 185 190
 Gln Ser Ile Leu Leu Ala Pro Ala Thr Ala Glu Leu Glu Pro Leu Ala
 195 200 205
 5 Asp Gly Gln Val Ser Gln Thr Asp Glu Glu Asp Met Gly Met Thr Tyr
 210 215 220
 Ala Glu Leu Ser Val Tyr Gly Lys Leu Arg Lys Val Ala Lys Met Gly
 225 230 235 240
 10 Pro Tyr Ser Met Phe Cys Lys Leu Leu Gly Met Trp Arg His Ile Cys
 245 250 255
 Thr Pro Arg Gln Val Ala Asp Lys Val Lys Arg Phe Phe Ser Lys Tyr
 260 265 270
 Ser Met Asn Arg His Lys Met Thr Thr Leu Thr Pro Ala Tyr His Ala
 275 280 285
 15 Glu Asn Tyr Ser Pro Glu Asp Asn Arg Phe Asp Leu Arg Pro Phe Leu
 290 295 300
 Tyr Asn Thr Ser Trp Pro Trp Gln Phe Arg Cys Ile Glu Asn Gln Val
 305 310 315 320
 20 Leu Gln Leu Glu Arg Ala Glu Pro Gln Ser Leu Asp Gly Val Asp
 325 330 335

<210> 451

<211> 86

<212> PRT

25 <213> Homo sapiens

<220>

<221> UNSURE

<222> 76

30 <223> Xaa = Lys,Asn

<400> 451

Met Cys Trp Val Ile Asn His Ala Ile Leu Pro Arg Met Arg Met His
 1 5 10 15
 35 Ser Lys Arg Gln Thr Ile Thr Arg His Ser Ala Ser Leu Ser Phe His
 20 25 30
 Ala Leu Pro Arg Ser Ala Phe Leu Gln Leu Cys Leu Leu Arg Gln Ile
 35 40 45
 40 His Gln Ile Pro Cys Leu Ser Ile Phe Ser Ser Thr Leu Arg Ala Gln
 50 55 60
 Thr His Asp Ser Gly Ile Gly Cys Thr Thr Ala Xaa Pro Gly Gly Arg
 65 70 75 80
 Arg Gln Glu Gln Leu Arg
 85

45

<210> 452

<211> 93

<212> PRT

50 <213> Homo sapiens

<400> 452

Met Lys Ile Ala Leu Cys Gln Arg Glu Leu Pro Ser Pro Arg Ser Cys
 1 5 10 15
 55 Leu Leu Ser Arg Asp Val Thr Gly Val Ile Cys Thr Arg Met Pro Arg
 20 25 30
 Leu Ala Ile Cys Ser Lys Thr Ala Gln Lys Ala Leu Pro Cys Ile Pro
 35 40 45
 Leu Leu His Thr Ser Pro Leu Cys Leu Gln Leu Leu Ser Ala Gly Leu
 50 55 60
 60 His Ile Tyr Ala Thr Leu Cys Lys Ser Cys Ala Ser Arg Asn His Lys
 65 70 75 80
 Asn Ile Phe Leu His Leu Leu His Ser Leu Ser Ala Ala
 85 90

<210> 453

<211> 108

<212> PRT

5 <213> Homo sapiens

<400> 453

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Met Ala Val Arg Ala Ser Phe Glu Asn Asn Cys Glu Ile Gly Cys Phe
1          5          10          15
10 Ala Lys Leu Thr Asn Thr Tyr Cys Leu Val Ala Ile Gly Gly Ser Glu
    20          25          30
    Asn Phe Tyr Ser Val Phe Glu Gly Glu Leu Ser Asp Thr Ile Pro Val
    35          40          45
    Val His Ala Ser Ile Ala Gly Cys Arg Ile Ile Gly Arg Met Cys Val
15    50          55          60
    Gly Asp Arg Arg Asn Ser Gly Arg Cys Ala Gln Gly Gly Ser Leu Gln
    65          70          75          80
    Thr Asp Ser Gly Arg Pro Gly Ala Ser Arg Lys Leu Leu Cys Leu Gln
    85          90          95
20 Gln Ser Gly Arg Ala Gly Ala Ser Gln Asp Phe Asn
    100          105

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<210> 454

<211> 277

25 <212> PRT

<213> Homo sapiens

<400> 454

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Met Ser Leu Cys Glu Asp Met Leu Leu Cys Asn Tyr Arg Lys Cys Arg
30 1          5          10          15
    Ile Lys Leu Ser Gly Tyr Ala Trp Val Thr Ala Cys Ser His Ile Phe
    20          25          30
    Cys Asp Gln His Gly Ser Gly Glu Phe Ser Arg Ser Pro Ala Ile Cys
    35          40          45
35 Pro Ala Cys Asn Ser Thr Leu Ser Gly Lys Leu Asp Ile Val Arg Thr
    50          55          60
    Glu Leu Ser Pro Ser Glu Glu Tyr Lys Ala Met Val Leu Ala Gly Leu
    65          70          75          80
    Arg Pro Glu Ile Val Leu Asp Ile Ser Ser Arg Ala Leu Ala Phe Trp
40    85          90          95
    Thr Tyr Gln Val His Gln Glu Arg Leu Tyr Gln Glu Tyr Asn Phe Ser
    100          105          110
    Lys Ala Glu Gly His Leu Lys Gln Met Glu Lys Ile Tyr Thr Gln Gln
    115          120          125
45 Ile Gln Ser Lys Asp Val Glu Leu Thr Ser Met Lys Gly Glu Val Thr
    130          135          140
    Ser Met Lys Lys Val Leu Glu Glu Tyr Lys Lys Lys Phe Ser Asp Ile
    145          150          155          160
    Ser Glu Lys Leu Met Glu Arg Asn Arg Gln Tyr Gln Lys Leu Gln Gly
50    165          170          175
    Leu Tyr Asp Ser Leu Arg Leu Arg Asn Ile Thr Ile Ala Asn His Glu
    180          185          190
    Gly Thr Leu Glu Pro Ser Met Ile Ala Gln Ser Gly Val Leu Gly Phe
    195          200          205
55 Pro Leu Gly Asn Asn Ser Lys Phe Pro Leu Asp Asn Thr Pro Val Arg
    210          215          220
    Asn Arg Gly Asp Gly Asp Gly Asp Phe Gln Phe Arg Pro Phe Phe Ala
    225          230          235          240
    Gly Ser Pro Thr Ala Pro Glu Pro Ser Asn Ser Phe Phe Ser Phe Val
60    245          250          255
    Ser Pro Ser Arg Glu Leu Glu Gln Gln Gln Val Ser Ser Arg Ala Phe
    260          265          270
    Lys Val Lys Arg Ile

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275

<210> 455
 <211> 173
 5 <212> PRT
 <213> Homo sapiens

<400> 455
 Met Leu Val Met Tyr Leu Leu Ala Ala Leu Phe Gly Tyr Leu Thr Phe
 1 5 10 15
 Tyr Gly Glu Val Glu Asp Glu Leu Leu His Ala Tyr Ser Lys Val Tyr
 20 25 30
 Thr Leu Asp Ile Pro Leu Leu Met Val Arg Leu Ala Val Leu Val Ala
 35 40 45
 15 Val Thr Leu Thr Val Pro Ile Val Leu Phe Pro Ile Arg Thr Ser Val
 50 55 60
 Ile Thr Leu Leu Phe Pro Lys Arg Pro Phe Ser Trp Ile Arg His Phe
 65 70 75 80
 Leu Ile Ala Ala Val Leu Ile Ala Leu Asn Asn Val Leu Val Ile Leu
 20 85 90 95
 Val Pro Thr Ile Lys Tyr Ile Phe Gly Phe Ile Gly Ala Ser Ser Ala
 100 105 110
 Thr Met Leu Ile Phe Ile Leu Pro Ala Val Phe Tyr Leu Lys Leu Val
 115 120 125
 25 Lys Lys Glu Thr Phe Arg Ser Pro Gln Lys Val Gly Ala Leu Ile Phe
 130 135 140
 Leu Val Val Gly Ile Phe Phe Met Ile Gly Ser Met Ala Leu Ile Ile
 145 150 155 160
 Ile Asp Trp Ile Tyr Asp Pro Pro Asn Ser Lys His His
 30 165 170

<210> 456
 <211> 370
 <212> PRT
 35 <213> Homo sapiens

<400> 456
 Met Ser Ala Ser Ala Ala Thr Gly Val Phe Val Leu Ser Leu Ser Ala
 1 5 10 15
 40 Ile Pro Val Thr Tyr Val Phe Asn His Leu Ala Ala Gln His Asp Ser
 20 25 30
 Trp Thr Ile Val Gly Val Ala Ala Leu Ile Leu Phe Leu Val Ala Leu
 35 40 45
 Leu Ala Arg Val Leu Val Lys Arg Lys Pro Pro Arg Asp Pro Leu Phe
 45 50 55 60
 Tyr Val Tyr Ala Val Phe Gly Phe Thr Ser Val Val Asn Leu Ile Ile
 65 70 75 80
 Gly Leu Glu Gln Asp Gly Ile Ile Asp Gly Phe Met Thr His Tyr Leu
 85 90 95
 50 Arg Glu Gly Glu Pro Tyr Leu Asn Thr Ala Tyr Gly His Met Ile Cys
 100 105 110
 Tyr Trp Asp Gly Ser Ala His Tyr Leu Met Tyr Leu Val Met Val Ala
 115 120 125
 Ala Ile Ala Trp Glu Glu Thr Tyr Arg Thr Ile Gly Leu Tyr Trp Val
 55 130 135 140
 Gly Ser Ile Ile Met Ser Val Val Val Phe Val Pro Gly Asn Ile Val
 145 150 155 160
 Gly Lys Tyr Gly Thr Arg Ile Cys Pro Ala Phe Phe Leu Ser Ile Pro
 165 170 175
 60 Tyr Thr Cys Leu Pro Val Trp Ala Gly Phe Arg Ile Tyr Asn Gln Pro
 180 185 190
 Ser Glu Asn Tyr Asn Tyr Pro Ser Lys Val Ile Gln Glu Ala Gln Ala
 195 200 205

Lys Asp Leu Leu Arg Arg Pro Phe Asp Leu Met Leu Val Val Cys Leu
 210 215 220
 Leu Leu Ala Thr Gly Phe Cys Leu Phe Arg Gly Leu Ile Ala Leu Asp
 225 230 235 240
 5 Cys Pro Ser Glu Leu Cys Arg Leu Tyr Thr Gln Phe Gln Glu Pro Tyr
 245 250 255
 Leu Lys Asp Pro Ala Ala Tyr Pro Lys Ile Gln Met Leu Ala Tyr Met
 260 265 270
 10 Phe Tyr Ser Val Pro Tyr Phe Val Thr Ala Leu Tyr Gly Leu Val Val
 275 280 285
 Pro Gly Cys Ser Trp Met Pro Asp Ile Thr Leu Ile His Ala Gly Gly
 290 295 300
 Leu Ala Gln Ala Gln Phe Ser His Ile Gly Ala Ser Leu His Ala Arg
 305 310 315 320
 15 Thr Ala Tyr Val Tyr Arg Val Pro Glu Glu Ala Lys Ile Leu Phe Leu
 325 330 335
 Ala Leu Asn Ile Ala Tyr Gly Val Leu Pro Gln Leu Leu Ala Tyr Arg
 340 345 350
 20 Cys Ile Tyr Lys Pro Glu Phe Phe Ile Lys Thr Lys Ala Glu Glu Lys
 355 360 365
 Val Glu
 370

 <210> 457
 25 <211> 393
 <212> PRT
 <213> Homo sapiens

 <400> 457
 30 Met Thr Tyr Arg Trp Gly Thr Leu Leu Met Lys Arg Lys Phe Glu Glu
 1 5 10 15
 Pro Arg Pro Gly Phe His Gly Val Leu Gly Ile Asn Ser Ile Thr Gly
 20 25 30
 35 Lys Glu Glu Pro Leu Tyr Pro Ser Tyr Lys Arg Gln Leu Arg Ile Tyr
 35 40 45
 Leu Val Ser Leu Pro Phe Val Cys Leu Cys Leu Tyr Phe Ser Leu Tyr
 50 55 60
 Val Met Met Ile Tyr Phe Asp Met Glu Val Trp Ala Leu Gly Leu His
 65 70 75 80
 40 Glu Asn Ser Gly Ser Glu Trp Thr Ser Val Leu Leu Tyr Val Pro Ser
 85 90 95
 Ile Ile Tyr Ala Ile Val Ile Glu Ile Met Asn Arg Leu Tyr Arg Tyr
 100 105 110
 Ala Ala Glu Phe Leu Thr Ser Trp Glu Asn His Arg Leu Glu Ser Ala
 115 120 125
 45 Tyr Gln Asn His Leu Ile Leu Lys Val Leu Val Phe Asn Phe Leu Asn
 130 135 140
 Cys Phe Ala Ser Leu Phe Tyr Ile Ala Phe Val Leu Lys Asp Met Lys
 145 150 155 160
 50 Leu Leu Arg Gln Ser Leu Ala Thr Leu Leu Ile Thr Ser Gln Ile Leu
 165 170 175
 Asn Gln Ile Met Glu Ser Phe Leu Pro Tyr Trp Leu Gln Arg Lys His
 180 185 190
 Gly Val Arg Val Lys Arg Lys Val Gln Ala Leu Lys Ala Asp Ile Asp
 195 200 205
 55 Ala Thr Leu Tyr Glu Gln Val Ile Leu Glu Lys Glu Met Gly Thr Tyr
 210 215 220
 Leu Gly Thr Phe Asp Asp Tyr Leu Glu Leu Phe Leu Gln Phe Gly Tyr
 225 230 235 240
 60 Val Ser Leu Phe Ser Cys Val Tyr Pro Leu Ala Ala Ala Phe Ala Val
 245 250 255
 Leu Asn Asn Phe Thr Glu Val Asn Ser Asp Ala Leu Lys Met Cys Arg
 260 265 270

Val Phe Lys Arg Pro Phe Ser Glu Pro Ser Ala Asn Ile Gly Val Trp
 275 280 285
 Gln Leu Ala Phe Glu Thr Met Ser Val Ile Ser Val Thr Asn Cys
 290 295 300
 5 Ala Leu Ile Gly Met Ser Pro Gln Val Asn Ala Val Phe Pro Glu Ser
 305 310 315 320
 Lys Ala Asp Leu Ile Leu Ile Val Val Ala Val Glu His Ala Leu Leu
 325 330 335
 10 Ala Leu Lys Phe Ile Leu Ala Phe Ala Ile Pro Asp Lys Pro Arg His
 340 345 350
 Ile Gln Met Lys Leu Ala Arg Leu Glu Phe Glu Ser Leu Glu Ala Leu
 355 360 365
 Lys Gln Gln Gln Met Lys Leu Val Thr Glu Asn Leu Lys Glu Glu Pro
 370 375 380
 15 Met Glu Ser Gly Lys Glu Lys Ala Thr
 385 390

 <210> 458
 <211> 116
 20 <212> PRT
 <213> Homo sapiens

 <400> 458
 25 Met Val Gly Gly Glu Ala Ala Ala Ala Val Glu Glu Leu Val Ser Gly
 1 5 10 15
 Val Arg Gln Ala Ala Asp Phe Ala Glu Gln Phe Arg Ser Tyr Ser Glu
 20 25 30
 Ser Glu Lys Gln Trp Lys Ala Arg Met Glu Phe Ile Leu Arg His Leu
 35 40 45
 30 Pro Asp Tyr Arg Asp Pro Pro Asp Gly Ser Gly Arg Leu Asp Gln Leu
 50 55 60
 Leu Ser Leu Ser Met Val Trp Ala Asn His Leu Phe Leu Gly Cys Ser
 65 70 75 80
 Tyr Asn Lys Asp Leu Leu Asp Lys Val Met Glu Met Ala Asp Gly Ile
 85 90 95
 35 Glu Val Glu Asp Leu Pro Gln Phe Thr Thr Arg Ser Glu Leu Met Lys
 100 105 110
 Lys His Gln Ser
 115
 40
 <210> 459
 <211> 163
 <212> PRT
 <213> Homo sapiens
 45
 <400> 459
 Met Glu His Tyr Arg Lys Ala Gly Ser Val Glu Leu Pro Ala Pro Ser
 1 5 10 15
 Pro Met Pro Gln Leu Pro Pro Asp Thr Leu Glu Met Arg Val Arg Asp
 20 25 30
 50 Gly Ser Lys Ile Arg Asn Leu Leu Gly Leu Ala Leu Gly Arg Leu Glu
 35 40 45
 Gly Gly Ser Ala Arg His Val Val Phe Ser Gly Ser Gly Arg Ala Ala
 50 55 60
 55 Gly Lys Ala Val Ser Cys Ala Glu Ile Val Lys Arg Arg Val Pro Gly
 65 70 75 80
 Leu His Gln Leu Thr Lys Leu Arg Phe Leu Gln Thr Glu Asp Ser Trp
 85 90 95
 Val Pro Ala Ser Pro Asp Thr Gly Leu Asp Pro Leu Thr Val Arg Arg
 100 105 110
 60 His Val Pro Ala Val Trp Val Leu Leu Ser Arg Asp Pro Leu Asp Pro
 115 120 125
 Asn Glu Cys Gly Tyr Gln Pro Pro Gly Ala Pro Pro Gly Leu Gly Ser

130 135 140
 Met Pro Ser Ser Ser Cys Gly Pro Arg Ser Arg Arg Arg Ala Arg Asp
 145 150 155 160
 Thr Arg Ser
 5
 <210> 460
 <211> 230
 <212> PRT
 <213> Homo sapiens
 10
 <400> 460
 Met Val Val Phe Gly Tyr Glu Ala Gly Thr Lys Pro Arg Asp Ser Gly
 1 5 10 15
 Val Val Pro Val Gly Thr Glu Glu Ala Pro Lys Val Phe Lys Met Ala
 15 20 25 30
 Ala Ser Met His Gly Gln Pro Ser Pro Ser Leu Glu Asp Ala Lys Leu
 35 40 45
 Arg Arg Pro Met Val Ile Glu Ile Ile Glu Lys Asn Phe Asp Tyr Leu
 50 55 60
 20 Arg Lys Glu Met Thr Gln Asn Ile Tyr Gln Met Ala Thr Phe Gly Thr
 65 70 75 80
 Thr Ala Gly Phe Ser Gly Ile Phe Ser Asn Phe Leu Phe Arg Arg Cys
 85 90 95
 Phe Lys Val Lys His Asp Ala Leu Lys Thr Tyr Ala Ser Leu Ala Thr
 100 105 110
 25 Leu Pro Phe Leu Ser Thr Val Val Thr Asp Lys Leu Phe Val Ile Asp
 115 120 125
 Ala Leu Tyr Ser Asp Asn Ile Ser Lys Glu Asn Cys Val Phe Arg Ser
 130 135 140
 30 Ser Leu Ile Gly Ile Val Cys Gly Val Phe Tyr Pro Ser Ser Leu Ala
 145 150 155 160
 Phe Thr Lys Asn Gly Arg Leu Ala Thr Lys Tyr His Thr Val Pro Leu
 165 170 175
 Pro Pro Lys Gly Arg Val Leu Ile His Trp Met Thr Leu Cys Gln Thr
 180 185 190
 35 Gln Met Lys Leu Met Ala Ile Pro Leu Val Phe Gln Ile Met Phe Gly
 195 200 205
 Ile Leu Asn Gly Leu Tyr His Tyr Ala Val Phe Glu Glu Thr Leu Glu
 210 215 220
 40 Lys Thr Ile His Glu Glu
 225 230
 <210> 461
 <211> 101
 45 <212> PRT
 <213> Homo sapiens
 <220>
 <221> UNSURE
 50 <222> 95
 <223> Xaa = Cys, Trp
 <400> 461
 Met Glu Arg Pro Asp Lys Ala Ala Leu Asn Ala Leu Gln Pro Pro Glu
 55 1 5 10 15
 Phe Arg Asn Glu Ser Ser Leu Ala Ser Thr Leu Lys Thr Leu Leu Phe
 20 25 30
 Phe Thr Ala Leu Met Ile Thr Val Pro Ile Gly Leu Tyr Phe Thr Thr
 35 40 45
 60 Lys Ser Tyr Ile Phe Glu Gly Ala Leu Gly Met Ser Asn Arg Asp Ser
 50 55 60
 Tyr Phe Tyr Ala Ala Ile Val Ala Val Val Ala Val His Val Val Leu
 65 70 75 80

Ala Leu Phe Val Tyr Val Ala Trp Asn Glu Gly Ser Arg Gln Xaa Arg
 85 90 95
 Glu Gly Lys Gln Asp
 100

5
 <210> 462
 <211> 93
 <212> PRT
 <213> Homo sapiens

10
 <400> 462
 Met Asp Ser Leu Arg Lys Met Leu Ile Ser Val Ala Met Leu Gly Ala
 1 5 10 15
 Gly Ala Gly Val Gly Tyr Ala Leu Leu Val Ile Val Thr Pro Gly Glu
 15 20 25 30
 Arg Arg Lys Gln Glu Met Leu Lys Glu Met Pro Leu Gln Asp Pro Arg
 35 40 45
 Ser Arg Glu Glu Ala Ala Arg Thr Gln Gln Leu Leu Leu Ala Thr Leu
 50 55 60
 20 Gln Glu Ala Ala Thr Thr Gln Glu Asn Val Ala Trp Arg Lys Asn Trp
 65 70 75 80
 Met Val Gly Gly Glu Gly Gly Ala Gly Gly Arg Ser Pro
 85 90

25 <210> 463
 <211> 133
 <212> PRT
 <213> Homo sapiens

30 <400> 463
 Met Gly His Gly Asp Glu Ile Val Leu Ala Asp Leu Asn Phe Pro Ala
 1 5 10 15
 Ser Ser Ile Cys Gln Cys Gly Pro Met Glu Ile Arg Ala Asp Gly Leu
 20 25 30
 35 Gly Ile Pro Gln Leu Leu Glu Ala Val Leu Lys Leu Leu Pro Leu Asp
 35 40 45
 Thr Tyr Val Glu Ser Pro Ala Ala Val Met Glu Leu Val Pro Ser Asp
 50 55 60
 Lys Glu Arg Gly Leu Gln Thr Pro Val Trp Thr Glu Tyr Glu Ser Ile
 40 65 70 75 80
 Leu Arg Arg Ala Gly Cys Val Arg Ala Leu Ala Lys Ile Glu Arg Phe
 85 90 95
 Glu Phe Tyr Glu Arg Ala Lys Lys Ala Phe Ala Val Val Ala Thr Gly
 100 105 110
 45 Glu Thr Ala Leu Tyr Gly Asn Leu Ile Leu Arg Lys Gly Val Leu Ala
 115 120 125
 Leu Asn Pro Leu Leu
 130

50 <210> 464
 <211> 95
 <212> PRT
 <213> Homo sapiens

55 <400> 464
 Met Gly His Gly Asp Glu Ile Val Leu Ala Asp Leu Asn Phe Pro Ala
 1 5 10 15
 Ser Ser Ile Cys Gln Cys Gly Pro Met Glu Ile Arg Ala Asp Gly Leu
 20 25 30
 60 Gly Ile Pro Gln Leu Leu Glu Ala Val Leu Ala Ala Ala Pro Gly His
 35 40 45
 Leu Cys Gly Glu Ser Gly Cys Ser His Gly Ala Gly Ala Gln Arg Gln
 50 55 60

Gly Glu Gly Pro Ala Asp Pro Ser Val Asp Gly Val Arg Val His Pro
 65 70 75 80
 Thr Gln Gly Arg Leu Cys Glu Ser Pro Gly Lys Asp Arg Glu Val
 85 90 95
 5
 <210> 465
 <211> 93
 <212> PRT
 <213> Homo sapiens
 10
 <400> 465
 Met Thr Pro Ile Lys Leu Leu Asn Leu Thr Ser Arg Tyr Asn Phe Arg
 1 5 10 15
 Arg Thr Phe Gly Ile Glu Leu Ser Ser Asn Ser Ser Tyr Cys Lys Arg
 15 20 25 30
 Gly Asn Gly Tyr Arg Ser Arg Val Pro Lys Glu Cys Glu Cys Asn Trp
 35 40 45
 Leu His Leu Glu Ser Asp Thr Leu Lys Lys Leu Pro Ile Ile Ser Pro
 50 55 60
 20 Ser Trp Thr Cys Arg Ile Ile Leu Phe Leu Tyr Phe Ser Gly Gln Leu
 65 70 75 80
 Leu Gln Leu Ser Leu Ser Cys Leu Gln Leu Ile Lys Leu
 85 90
 25
 <210> 466
 <211> 500
 <212> PRT
 <213> Homo sapiens
 30
 <400> 466
 Met Glu Val Ser Thr Asn Pro Ser Ser Asn Ile Asp Pro Gly Asn Tyr
 1 5 10 15
 Val Glu Met Asn Asp Ser Ile Thr His Leu Pro Ser Lys Val Val Ile
 20 25 30
 35 Gln Asp Ile Thr Met Glu Leu His Cys Pro Leu Cys Asn Asp Trp Phe
 35 40 45
 Arg Asp Pro Leu Met Leu Ser Cys Gly His Asn Phe Cys Glu Ala Cys
 50 55 60
 Ile Gln Asp Phe Trp Arg Leu Gln Ala Lys Glu Thr Phe Cys Pro Glu
 40 65 70 75 80
 Cys Lys Met Leu Cys Gln Tyr Asn Asn Cys Thr Phe Asn Pro Val Leu
 85 90 95
 Asp Lys Leu Val Glu Lys Ile Lys Lys Leu Pro Leu Leu Lys Gly His
 100 105 110
 45 Pro Gln Cys Pro Glu His Gly Glu Asn Leu Lys Leu Phe Ser Lys Pro
 115 120 125
 Asp Gly Lys Leu Ile Cys Phe Gln Cys Lys Asp Ala Arg Leu Ser Val
 130 135 140
 Gly Gln Ser Lys Glu Phe Leu Gln Ile Ser Asp Ala Val His Phe Phe
 50 145 150 155 160
 Met Glu Glu Leu Ala Ile Gln Gln Gly Gln Leu Glu Thr Thr Leu Lys
 165 170 175
 Glu Leu Gln Thr Leu Arg Asn Met Gln Lys Glu Ala Ile Ala Ala His
 180 185 190
 55 Lys Glu Asn Lys Leu His Leu Gln His Val Ser Met Glu Phe Leu
 195 200 205
 Lys Leu His Gln Phe Leu His Ser Lys Glu Lys Asp Ile Leu Thr Glu
 210 215 220
 Leu Arg Glu Glu Gly Lys Ala Leu Asn Glu Glu Met Glu Leu Asn Leu
 60 225 230 235 240
 Ser Gln Leu Gln Glu Gln Cys Leu Leu Ala Lys Asp Met Leu Val Ser
 245 250 255
 Ile Gln Ala Lys Thr Glu Gln Gln Asn Ser Phe Asp Phe Leu Lys Asp

260 265 270
 Ile Thr Thr Leu Leu His Ser Leu Glu Gln Gly Met Lys Val Leu Ala
 275 280 285
 Thr Arg Glu Leu Ile Ser Arg Lys Leu Asn Leu Gly Gln Tyr Lys Gly
 290 295 300
 5 Pro Ile Gln Tyr Met Val Trp Arg Glu Met Gln Asp Thr Leu Cys Pro
 305 310 315 320
 Gly Leu Ser Pro Leu Thr Leu Asp Pro Lys Thr Ala His Pro Asn Leu
 325 330 335
 10 Val Leu Ser Lys Ser Gln Thr Ser Val Trp His Gly Asp Ile Lys Lys
 340 345 350
 Ile Met Pro Asp Asp Pro Glu Arg Phe Asp Ser Ser Val Ala Val Leu
 355 360 365
 Gly Ser Arg Gly Phe Thr Ser Gly Lys Trp Tyr Trp Glu Val Glu Val
 370 375 380
 15 Ala Lys Lys Thr Lys Trp Thr Val Gly Val Val Arg Glu Ser Ile Ile
 385 390 395 400
 Arg Lys Gly Ser Cys Pro Leu Thr Pro Glu Gln Gly Phe Trp Leu Leu
 405 410 415
 20 Arg Leu Arg Asn Gln Thr Asp Leu Lys Ala Leu Asp Leu Pro Ser Phe
 420 425 430
 Ser Leu Thr Leu Thr Asn Asn Leu Asp Lys Val Gly Ile Tyr Leu Asp
 435 440 445
 Tyr Glu Gly Gly Gln Leu Ser Phe Tyr Asn Ala Lys Thr Met Thr His
 450 455 460
 25 Ile Tyr Thr Phe Ser Asn Thr Phe Met Glu Lys Leu Tyr Pro Tyr Phe
 465 470 475 480
 Cys Pro Cys Leu Asn Asp Gly Arg Glu Asn Lys Glu Pro Leu His Ile
 485 490 495
 30 Leu His Pro Gln
 500

 <210> 467
 <211> 140
 35 <212> PRT
 <213> Homo sapiens

 <400> 467
 Met Val Leu Thr Lys Pro Leu Gln Arg Asn Gly Ser Met Met Ser Phe
 40 1 5 10 15
 Glu Asn Val Lys Glu Lys Ser Arg Glu Gly Gly Pro His Ala His Thr
 20 25 30
 Pro Glu Glu Glu Leu Cys Phe Val Val Thr His Tyr Pro Gln Val Gln
 35 40 45
 45 Thr Thr Leu Asn Leu Phe Phe His Ile Phe Lys Val Leu Thr Gln Pro
 50 55 60
 Leu Ser Leu Leu Trp Gly Cys Asp Gln Lys Pro Arg Thr Val Pro Thr
 65 70 75 80
 Leu Gly Asn Gly Ala Trp Asp Thr Cys Gln Gln His Ile Arg Thr Ser
 85 90 95
 50 Ser Trp Thr Ala Asn Thr Leu Val Ile Gln Asn Gln His Ser Arg Glu
 100 105 110
 Ser Thr Val Ser Val Cys Leu Phe Met Leu Ile Arg Met Gln His Ile
 115 120 125
 55 Leu Lys Thr Asp Thr Leu Gln Phe Arg Ile Cys
 130 135 140

 <210> 468
 <211> 100
 60 <212> PRT
 <213> Homo sapiens

 <400> 468

Met Tyr Met Leu Leu Ser Pro His Arg Leu Arg Glu Gln Ala Gly Val
 1 5 10 15
 Arg Gly Ser Ile Arg Thr Ala Asn Arg Thr Glu Asp Gly Leu Lys Ile
 20 25 30
 5 Arg Glu Ala Glu Ser Leu Pro Gln Ser Asn Thr Ala Asp Phe Lys Cys
 35 40 45
 Leu His Ser Ala Ser Leu Gln Gln Ala Pro Gly Gly Ile Leu Met Gly
 50 55 60
 Pro Ala Ser Ser Pro Trp Thr Leu Ala Val Glu Gly Glu Lys Arg Thr
 10 65 70 75 80
 Ser Ala Pro Pro Leu Arg Glu Ser Leu Met Pro Thr Lys Gly Leu Gly
 85 90 95
 Trp Trp Thr Gln
 100
 15
 <210> 469
 <211> 119
 <212> PRT
 <213> Homo sapiens
 20
 <400> 469
 Met Ala Ser Tyr Ser Gly Phe Ser Gly Leu Leu Glu Ile Arg Tyr Gly
 1 5 10 15
 Pro Gly His Arg Ser Cys Leu Pro Gln Phe Ala Phe Phe Pro Gln Pro
 25 20 25 30
 Pro Leu Pro Arg Pro Arg Ile Cys Met Trp Val Leu Ala Glu Leu Leu
 35 40 45
 Glu Leu Gly Cys Pro Glu Gln Ser Leu Arg Asp Ala Ile Thr Leu Asp
 50 55 60
 30 Leu Phe Cys His Ala Leu Ile Phe Cys Arg Gln Gln Gly Phe Ser Leu
 65 70 75 80
 Glu Gln Thr Ser Ala Ala Cys Ala Leu Leu Gln Asp Leu His Lys Ala
 85 90 95
 Cys Ile Gly Glu Arg Gly Gln Leu Pro Gly Leu Ser Pro Arg Glu Lys
 35 100 105 110
 Arg Asn Arg Ala Trp His Lys
 115
 <210> 470
 40 <211> 140
 <212> PRT
 <213> Homo sapiens
 <400> 470
 45 Met Arg Ser Glu Cys Val Leu Gly Ala Ala Ser Asp Ser Gly Gln Glu
 1 5 10 15
 Ala Pro Arg Asp Thr Trp Phe Leu Gln Gly Trp Lys Ala Ser Arg Arg
 20 25 30
 Phe Leu Ile Lys Gly Ser Val Ala Gly Gly Ala Val Tyr Leu Val Tyr
 50 35 40 45
 Asp Gln Glu Leu Leu Gly Pro Ser Asp Lys Ser Gln Ala Ala Leu Gln
 50 55 60
 Lys Ala Gly Glu Val Val Pro Pro Ala Met Tyr Gln Phe Ser Gln Tyr
 65 70 75 80
 55 Val Cys Gln Gln Thr Gly Leu Gln Ile Pro Gln Leu Pro Ala Pro Pro
 85 90 95
 Lys Ile Tyr Phe Pro Ile Arg Asp Ser Trp Asn Ala Gly Ile Met Thr
 100 105 110
 Val Met Ser Ala Leu Ser Val Ala Pro Ser Lys Ala Arg Glu Tyr Ser
 60 115 120 125
 Lys Glu Gly Trp Glu Tyr Val Lys Ala Arg Thr Lys
 130 135 140

<210> 471
 <211> 109
 <212> PRT
 <213> Homo sapiens

5

<400> 471
 Met Phe His Leu Arg Thr Cys Ala Ala Lys Leu Arg Pro Leu Thr Ala
 1 5 10 15
 Ser Gln Thr Val Lys Thr Phe Ser Gln Asn Arg Pro Ala Ala Arg
 10 20 25 30
 Thr Phe Gln Gln Ile Arg Cys Tyr Ser Ala Pro Val Ala Ala Glu Pro
 35 40 45
 Phe Leu Ser Gly Thr Ser Ser Asn Tyr Val Glu Glu Met Tyr Cys Ala
 50 55 60
 Trp Leu Glu Asn Pro Lys Ser Val His Lys Thr Gly Ser His Cys Cys
 15 65 70 75 80
 Pro Gly Trp Ser Ala Val Ala Gly Ser Arg Leu Ala Ala Thr Ser Asp
 85 90 95
 Ser Trp Val Gln Val Ile Leu Met Pro Gln Pro Pro Glu
 20 100 105

<210> 472
 <211> 100
 <212> PRT
 25 <213> Homo sapiens

<400> 472
 Met Phe His Leu Arg Thr Cys Ala Ala Lys Leu Arg Pro Leu Thr Ala
 1 5 10 15
 30 Ser Gln Thr Val Lys Thr Phe Ser Gln Asn Arg Pro Ala Ala Arg
 20 25 30
 Thr Phe Gln Gln Ile Arg Ala Ile Leu His Leu Leu Leu Leu Ser Pro
 35 40 45
 Phe Ser Val Gly Leu Val Arg Thr Met Trp Arg Arg Cys Thr Val Leu
 50 55 60
 35 Gly Trp Lys Thr Pro Lys Val Tyr Ile Arg Gln Gly Pro Thr Val Val
 65 70 75 80
 Gln Ala Gly Val Gln Trp Arg Asp Leu Gly Leu Leu Gln Pro Pro Thr
 85 90 95
 40 Pro Gly Phe Lys
 100

<210> 473
 <211> 141
 45 <212> PRT
 <213> Homo sapiens

<400> 473
 Met Ala Pro Lys Val Phe Arg Gln Tyr Trp Asp Ile Pro Asp Gly Thr
 50 1 5 10 15
 Asp Cys His Arg Lys Ala Tyr Ser Thr Thr Ser Ile Ala Ser Val Ala
 20 25 30
 Gly Leu Thr Ala Ala Ala Tyr Arg Val Thr Leu Asn Pro Pro Gly Thr
 35 40 45
 55 Phe Leu Glu Gly Val Ala Lys Val Gly Gln Tyr Thr Phe Thr Ala Ala
 50 55 60
 Ala Val Gly Ala Val Phe Gly Leu Thr Thr Cys Ile Ser Ala His Val
 65 70 75 80
 Arg Glu Lys Pro Asp Asp Pro Leu Asn Tyr Phe Leu Gly Gly Cys Ala
 60 85 90 95
 Gly Gly Leu Thr Leu Gly Ala Arg Thr His Asn Tyr Gly Ile Gly Ala
 100 105 110
 Ala Ala Cys Val Tyr Phe Gly Ile Ala Ala Ser Leu Val Lys Met Gly

115 120 125
 Arg Leu Glu Gly Trp Glu Val Phe Ala Lys Pro Lys Val
 130 135 140

5 <210> 474
 <211> 134
 <212> PRT
 <213> Homo sapiens

10 <400> 474
 Met Ala Thr His Pro Asp Gly Phe Arg Leu Glu Gly Pro Leu Ala Ala
 1 5 10 15
 Ala His Ser Pro Gly Pro Cys Thr Val Leu Tyr Glu Gly Pro Val Arg
 20 25 30
 15 Gly Leu Cys Pro Phe Ala Pro Arg Asn Ser Asn Thr Met Ala Ala Ala
 35 40 45
 Ala Leu Ala Ala Pro Ser Leu Gly Phe Asp Gly Val Ile Gly Val Leu
 50 55 60
 Val Ala Asp Thr Ser Leu Thr Asp Met His Val Val Asp Val Glu Leu
 20 65 70 75 80
 Ser Gly Pro Arg Gly Pro Thr Gly Arg Ser Phe Ala Val His Thr Arg
 85 90 95
 Arg Glu Asn Pro Ala Glu Pro Gly Ala Val Thr Gly Ser Ala Thr Val
 100 105 110
 25 Thr Ala Phe Trp Arg Ser Leu Leu Ala Cys Cys Gln Leu Pro Ser Arg
 115 120 125
 Pro Gly Ile His Leu Cys
 130

30 <210> 475
 <211> 134
 <212> PRT
 <213> Homo sapiens

35 <400> 475
 Met Ala Thr His Pro Asp Gly Phe Arg Leu Glu Gly Pro Leu Ala Ala
 1 5 10 15
 Ala His Ser Pro Gly Pro Cys Thr Val Leu Tyr Glu Gly Pro Val Arg
 20 25 30
 40 Gly Leu Cys Pro Phe Ala Pro Arg Asn Ser Asn Thr Met Ser Ala Ala
 35 40 45
 Ala Leu Ala Ala Pro Ser Leu Gly Phe Asp Gly Val Ile Gly Val Leu
 50 55 60
 Val Ala Asp Thr Ser Leu Thr Asp Met His Val Val Asp Val Glu Leu
 45 65 70 75 80
 Ser Gly Pro Arg Gly Pro Thr Cys Arg Ser Phe Ala Val His Thr Arg
 85 90 95
 Arg Glu Asn Pro Ala Glu Pro Gly Ala Val Thr Gly Ser Ala Thr Val
 100 105 110
 50 Thr Ala Phe Trp Arg Ser Leu Leu Ala Cys Cys Gln Leu Pro Ser Arg
 115 120 125
 Pro Gly Ile His Leu Cys
 130

55 <210> 476
 <211> 85
 <212> PRT
 <213> Homo sapiens

60 <400> 476
 Met Leu Lys Val Glu Ala Thr Gly Ser Pro Glu Glu Gly Trp Ala Gly
 1 5 10 15
 Gly Glu Pro Arg Thr Gly Ala Pro Ala Asn Ser Pro Ser Cys Pro Gln

20 25 30
 Glu Met Pro Leu Gln Asp Pro Arg Ser Arg Glu Glu Ala Arg Thr
 35 40 45
 Gln Gln Leu Leu Leu Ala Thr Leu Gln Glu Ala Ala Thr Thr Gln Glu
 5 50 55 60
 Asn Val Ala Trp Arg Lys Asn Trp Met Val Gly Gly Glu Gly Gly Ala
 65 70 75 80
 Ser Gly Arg Ser Pro
 85
 10
 <210> 477
 <211> 116
 <212> PRT
 <213> Homo sapiens
 15
 <400> 477
 Met Gly Arg Pro Trp Met Val Met Ile Leu Glu Ser Lys Ser Glu Glu
 1 5 10 15
 Lys Met Trp Tyr Gly Val Phe Leu Trp Ala Leu Val Ser Ser Leu Phe
 20 20 25 30
 Phe His Val Pro Ala Gly Leu Leu Ala Leu Phe Thr Leu Arg His His
 35 40 45
 Lys Tyr Gly Arg Phe Met Ser Val Ser Ile Leu Leu Met Gly Ile Val
 50 55 60
 25 Gly Pro Ile Thr Ala Gly Ile Leu Thr Ser Ala Ala Ile Ala Gly Val
 65 70 75 80
 Tyr Arg Ala Ala Gly Lys Glu Met Ile Pro Phe Glu Ala Leu Thr Leu
 85 90 95
 Gly Thr Gly Gln Thr Phe Cys Val Leu Val Val Ser Phe Leu Arg Ile
 30 100 105 110
 Leu Ala Thr Leu
 115
 <210> 478
 35 <211> 104
 <212> PRT
 <213> Homo sapiens
 <400> 478
 40 Met Asn Arg Tyr Cys Gly Lys Ile Phe Val Ser Val Met Val Lys Leu
 1 5 10 15
 Gln Lys Asn Lys Leu Thr Ser Phe Pro Arg Gln Pro Leu Leu Thr Phe
 20 25 30
 Phe Glu Tyr Leu Glu Lys Val Leu Cys Ser Gly Leu Phe Ser His Ser
 45 35 40 45
 Ala Lys Ser His His Asp Leu Leu Thr Arg His Pro Tyr Glu Thr Ala
 50 55 60
 Ala Pro Leu Leu Ser Ser His Leu Ile Leu Thr Glu Ala Leu Arg Asn
 65 70 75 80
 50 Gly Leu Gly Lys Cys His Asp Pro His Phe Thr Gly Glu Glu Thr Glu
 85 90 95
 Ala Gln Arg Gly Lys Leu Thr Thr
 100
 55 <210> 479
 <211> 439
 <212> PRT
 <213> Homo sapiens
 60 <400> 479
 Leu Gly Asp His Gly Trp Glu Leu Ser Leu Glu Glu Asp Ala Gln Leu
 1 5 10 15
 Trp Gly Gly Val Val Lys Ser Cys Phe Glu Gly Lys Gly Pro Gln Arg

				20					25				30			
	Glu	Ala	Gln	Pro	Ala	Ser	Pro	Gln	Ala	Ala	Pro	Pro	Gly	Pro	Thr	Asn
			35					40					45			
5	Glu	Ala	Gln	Met	Ala	Ala	Ala	Ala	Ala	Leu	Ala	Arg	Leu	Glu	Gln	Lys
		50					55					60				
	Gln	Ser	Arg	Ala	Trp	Gly	Pro	Thr	Ser	Gln	Asp	Thr	Ile	Arg	Asn	Gln
	65					70				75					80	
	Val	Arg	Lys	Glu	Leu	Gln	Ala	Glu	Ala	Thr	Val	Ser	Gly	Ser	Pro	Glu
					85				90					95		
10	Ala	Pro	Gly	Thr	Asn	Val	Val	Ser	Glu	Pro	Arg	Glu	Glu	Gly	Ser	Ala
				100					105					110		
	His	Leu	Ala	Val	Pro	Gly	Val	Tyr	Phe	Thr	Cys	Pro	Leu	Thr	Gly	Ala
			115					120					125			
	Thr	Leu	Arg	Lys	Asp	Gln	Arg	Asp	Ala	Cys	Ile	Lys	Glu	Ala	Ile	Leu
15		130					135					140				
	Leu	His	Phe	Ser	Thr	Asp	Pro	Val	Ala	Ala	Ser	Ile	Met	Lys	Ile	Tyr
	145					150				155					160	
	Thr	Phe	Asn	Lys	Asp	Gln	Asp	Arg	Val	Lys	Leu	Gly	Val	Asp	Thr	Ile
					165				170					175		
20	Ala	Lys	Tyr	Leu	Asp	Asn	Ile	His	Leu	His	Pro	Glu	Glu	Glu	Lys	Tyr
				180					185					190		
	Arg	Lys	Ile	Lys	Leu	Gln	Asn	Lys	Val	Phe	Gln	Glu	Arg	Ile	Asn	Cys
			195				200					205				
	Leu	Glu	Gly	Thr	His	Glu	Phe	Phe	Glu	Ala	Ile	Gly	Phe	Gln	Lys	Val
25		210					215					220				
	Leu	Leu	Pro	Ala	Gln	Asp	Gln	Glu	Asp	Pro	Glu	Glu	Phe	Tyr	Val	Leu
	225				230				235						240	
	Ser	Glu	Thr	Thr	Leu	Ala	Gln	Pro	Gln	Ser	Leu	Glu	Arg	His	Lys	Glu
					245				250					255		
30	Gln	Leu	Leu	Ala	Glu	Pro	Val	Arg	Ala	Lys	Leu	Asp	Arg	Gln	Arg	
			260					265					270			
	Arg	Val	Phe	Gln	Pro	Ser	Pro	Leu	Ala	Ser	Gln	Phe	Glu	Leu	Pro	Gly
			275				280					285				
	Asp	Phe	Phe	Asn	Leu	Thr	Ala	Glu	Glu	Ile	Lys	Arg	Glu	Gln	Arg	Leu
35		290					295				300					
	Arg	Ser	Glu	Ala	Val	Glu	Arg	Leu	Ser	Val	Leu	Arg	Thr	Lys	Ala	Met
	305					310			315					320		
	Arg	Glu	Lys	Glu	Glu	Gln	Arg	Gly	Leu	Arg	Lys	Tyr	Asn	Tyr	Thr	Leu
					325				330					335		
40	Leu	Arg	Val	Arg	Leu	Pro	Asp	Gly	Cys	Leu	Leu	Gln	Gly	Thr	Phe	Tyr
				340				345					350			
	Ala	Arg	Glu	Arg	Leu	Gly	Ala	Val	Tyr	Gly	Phe	Val	Arg	Glu	Ala	Leu
			355				360					365				
	Gln	Ser	Asp	Trp	Leu	Pro	Phe	Glu	Leu	Leu	Ala	Ser	Gly	Gly	Gln	Lys
45		370					375				380					
	Leu	Ser	Glu	Asp	Glu	Asn	Leu	Ala	Leu	Asn	Glu	Cys	Gly	Leu	Val	Pro
	385					390				395					400	
	Ser	Ala	Leu	Leu	Thr	Phe	Ser	Trp	Asp	Met	Ala	Val	Leu	Glu	Asp	Ile
				405					410					415		
50	Lys	Ala	Ala	Gly	Ala	Glu	Pro	Asp	Ser	Ile	Leu	Lys	Pro	Glu	Leu	Leu
				420				425					430			
	Ser	Ala	Ile	Glu	Lys	Leu	Leu									
				435												
55	<210>	480														
	<211>	116														
	<212>	PRT														
	<213>	Homo sapiens														
60	<400>	480														
	Met	Trp	Ala	Arg	Leu	Pro	His	Thr	Pro	Glu	Gln	Met	Gly	His	Arg	Leu
	1				5				10					15		
	Ile	Gly	Pro	Lys	Glu	Ala	Ser	Leu	His	Val	Val	Pro	Ser	Trp	Pro	Ala

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      20      25      30
Arg Lys Met Glu Gly Leu Leu Ala Gly Leu Ser Ser Ser Pro Arg Lys
      35      40      45
5 Ser Cys Trp Pro Phe Trp Val His Gly Pro Lys Val His Glu Gly Gly
      50      55      60
Ser Ala Cys Glu Thr Ser Ser Ser Trp Val Glu Gly Leu Gly Leu Arg
65      70      75      80
Arg Val Thr Ser Val His Ser Leu Cys Gln Gly Leu Gly Ala Ser Val
      85      90      95
10 Gln Leu Leu Pro Gly Pro Pro Pro Thr Thr Thr Ser Asp Lys Asn Asn
      100      105      110
Tyr Thr Ser Gly
      115

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15 <210> 481
 <211> 171
 <212> PRT
 <213> Homo sapiens

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20 <400> 481
Met Gln Pro Ala Glu Arg Ser Arg Val Pro Arg Ile Asp Pro Tyr Gly
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Phe Glu Arg Pro Glu Asp Phe Asp Asp Ala Ala Tyr Glu Lys Phe Phe
      20      25      30
25 Ser Ser Tyr Leu Val Thr Leu Thr Arg Arg Ala Ile Lys Trp Ser Arg
      35      40      45
Leu Leu Gln Gly Gly Gly Val Pro Arg Ser Arg Thr Val Lys Arg Tyr
      50      55      60
Val Arg Lys Gly Val Pro Leu Glu His Arg Ala Arg Val Trp Met Val
30 65      70      75      80
Leu Ser Gly Ala Gln Ala Gln Met Asp Gln Asn Pro Gly Tyr Tyr His
      85      90      95
Gln Leu Leu Gln Gly Glu Arg Asn Pro Arg Leu Glu Asp Ala Ile Arg
      100      105      110
35 Thr Asp Leu Asn Arg Thr Phe Pro Asp Asn Val Lys Phe Arg Lys Thr
      115      120      125
Thr Asp Pro Cys Leu Gln Arg Thr Leu Tyr Asn Val Leu Leu Ala Tyr
      130      135      140
Gly His His Asn Gln Gly Val Gly Tyr Cys Gln Gly Met Asn Phe Ile
40 145      150      155      160
Ala Gly Tyr Leu Ile Leu Ile Thr Asn Asn Glu
      165      170

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<210> 482
 45 <211> 177
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 <213> Homo sapiens

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      <400> 482
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1      5      10      15
Phe Glu Arg Pro Glu Asp Phe Asp Asp Ala Ala Tyr Glu Lys Phe Phe
      20      25      30
Ser Ser Tyr Leu Val Thr Leu Thr Arg Arg Ala Ile Lys Trp Ser Arg
55 35      40      45
Leu Leu Gln Gly Gly Gly Val Pro Arg Ser Arg Thr Val Lys Arg Tyr
      50      55      60
Val Arg Lys Gly Val Pro Leu Glu His Arg Ala Arg Val Trp Met Val
65      70      75      80
60 Leu Ser Gly Ala Gln Ala Gln Met Asp Gln Asn Pro Gly Tyr Tyr His
      85      90      95
Gln Leu Leu Gln Gly Glu Arg Asn Pro Arg Leu Glu Asp Ala Ile Arg
      100      105      110

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	Thr	Asp	Leu	Asn	Arg	Thr	Phe	Pro	Asp	Asn	Val	Lys	Phe	Arg	Lys	Thr
			115					120					125			
	Thr	Asp	Pro	Cys	Leu	Gln	Arg	Thr	Leu	Tyr	Asn	Val	Leu	Leu	Ala	Tyr
		130					135					140				
5	Gly	His	His	Asn	Gln	Gly	Val	Gly	Tyr	Cys	Gln	Gly	Met	Asn	Phe	Ile
	145					150					155					160
	Ala	Gly	Tyr	Leu	Ile	Leu	Ile	Thr	Asn	Asn	Asp	Lys	Asn	Leu	Phe	Gly
					165					170					175	
	Cys															